

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
and  
UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

IN THE MATTER OF: )

U.S. EPA Region 9 CERCLA Docket No.  
2017-04

CORDERO-MCDERMITT CALCINE  
PILE SITE

Barrick Gold U.S., Inc., )

Respondent. )

Proceeding Under Sections 104, 106(a),  
107 and 122 of the Comprehensive  
Environmental Response, Compensation,  
and Liability Act, 42 U.S.C. §§ 9604,  
9606(a), 9607 and 9622

## ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION

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## **I. JURISDICTION AND GENERAL PROVISIONS**

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the United States Department of the Interior ("DOI"), Bureau of Land Management ("BLM") (collectively, the "Federal Agencies") with Barrick Gold U.S., Inc. ("Respondent") (collectively, "Parties"). This Settlement Agreement provides for the performance of a removal action by Respondent and the reimbursement of certain response costs incurred by the United States at or in connection with the "Cordero-McDermitt Calcine Pile Site" (the "Site") generally located in and near the town of McDermitt, Humboldt County, Nevada and resolves all outstanding claims against Respondent under EPA's Unilateral Administrative Order for the performance of a removal action, U.S. EPA Docket No. 9-2012-10, Signed October 16, 2012.

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622 (CERCLA). This authority was delegated to the Administrator of EPA and the Secretary of the Interior on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987). This authority was further delegated to EPA Regional Administrators by EPA Delegation No. 14-14-D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders, May 11, 1994) and by the Secretary of the Interior to the Director of BLM pursuant to Part 207, Chapter 7 of DOI's Manual. This authority was further redelegated by the Regional Administrator of EPA Region 9 to the Superfund Assistant Directors pursuant to Region 9 Delegation R9-1290.20 and by the BLM Director to the BLM State Directors.

3. One Lead Agency will be responsible for coordinating, overseeing, and enforcing the response actions required by this Settlement Agreement. The BLM has been designated by the Federal Agencies as the Lead Agency, at this time.

4. The Federal Agencies have notified the State of Nevada (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

5. In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), the Federal Agencies have notified the appropriate natural resource trustees of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to natural resources under federal trusteeship.

6. The Federal Agencies and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Section IV (Findings of Fact) and Section V (Conclusions of Law and Determinations) of this Settlement Agreement. Respondent agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms.

## **II. PARTIES BOUND**

7. This Settlement Agreement is binding upon the Federal Agencies and upon Respondent and its successors, and assigns. Any change in ownership or corporate status of the Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement.

8. Respondent is liable for carrying out all activities required by this Settlement Agreement.

9. The undersigned representative of Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind Respondent to this Settlement Agreement.

10. Respondent shall provide a copy of this Settlement Agreement to each contractor hired to perform the Work required by this Settlement Agreement and to each person representing Respondent with respect to the Site or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Settlement Agreement. Respondent or its contractors shall provide written notice of the Settlement Agreement to all subcontractors hired to perform any portion of the Work required by this Settlement Agreement. Respondent shall nonetheless be responsible for ensuring that their contractors and subcontractors perform the Work in accordance with the terms of this Settlement Agreement.

## **III. DEFINITIONS**

11. Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or its attached appendices, the following definitions shall apply:

"Action Memorandum" shall mean the BLM Action Memorandum relating to the Site signed on June 8, 2017, by the BLM Humboldt River Field Manager and all attachments thereto. The Action Memorandum is attached as Appendix A.

"Affected Property" shall mean the Cordero Mine calcine mercury tailings pile located on patented claims owned by Barrick Gold U.S., Inc. that also may have comprised part of the former McDermitt Mine site, and on Federal land managed by the BLM. The Affected Property is generally located within the NE ¼ of Section 33, T47N, R37E, Mt. Diablo Meridian, Humboldt County, Nevada, approximately 11 miles southwest of the town of McDermitt, Nevada.

"BLM" shall mean the Bureau of Land Management and any successor departments or agencies of the United States.

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

"Day" or "day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

"DOI" shall mean the United States Department of the Interior, and its successor departments, agencies or instrumentalities.

"Effective Date" shall mean the effective date of this Settlement Agreement as provided in Section XXXII.

"EPA" shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

"EPA Hazardous Substance Superfund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the DOI incurs in preparing for and negotiating the Removal Action Work Plan and this Settlement Agreement and that the United States incurs in reviewing or developing deliverables submitted pursuant to this Settlement Agreement, in overseeing implementation of the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Section IX (Property Requirements) (including, but not limited to, cost of attorney time and any monies paid to secure or enforce access, or land, water, or other resource use restrictions and to secure implement, monitor, maintain or enforce Institutional Controls, including, but not limited to, the amount of just compensation), Section XIII (Emergency Response and Notification of Releases), Paragraph 103 (Work Takeover), community involvement, Section XV (Dispute Resolution), and all litigation costs. Future Response Costs shall also include Agency for Toxic Substances and Disease Registry (ATSDR) costs regarding the Site.

"Health and Safety Plan" shall mean the Health and Safety Plan attached hereto as Appendix B.

"Inspection and Maintenance Plan" shall mean the Inspection and Maintenance Plan attached hereto as Appendix C.

"Institutional Controls" or "ICs" shall mean Proprietary Controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (a) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (b) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the integrity of the removal action; and/or (c) provide information intended to modify or guide human behavior at or in connection with the Site.

"Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest

shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at [http://www.epa.gov/ocfopage/finstatement/superfund/int\\_rate.htm](http://www.epa.gov/ocfopage/finstatement/superfund/int_rate.htm).

“Lead Agency” shall mean the federal agency with direct control over the response action(s) taking place at the Site. For purposes of this Settlement Agreement, the Lead Agency is the BLM. The Federal Agencies reserve the right to change the Lead Agency upon reasonable notice to Respondent.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Paragraph” shall mean a portion of this Settlement Agreement identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean the Federal Agencies and Respondent.

“Past Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States paid at or in connection with the Site through the Effective Date of this Settlement Agreement, plus Interest on all such costs through such date.

“Post-Removal Site Control” shall mean actions necessary to ensure the effectiveness and integrity of the removal action to be performed pursuant to this Settlement Agreement consistent with Sections 300.415(l) and 300.5 of the NCP and “Policy on Management of Post-Removal Site Control” (OSWER Directive No. 9360.2-02, Dec. 3, 1990).

“Prior Encumbrances” shall mean all record matters that affect title to the Affected Property, including all prior liens, claims, rights (such as easements), mortgages, and other encumbrances.

“Proprietary Controls” shall mean the Environmental Covenant, attached hereto as Appendix D, running with the land that: (a) limits land, water, or other resource use and/or provide access rights and (b) is created pursuant to common law or statutory law by an instrument that is recorded by the owner in the appropriate land records office.

“RCRA” shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“Removal Action Work Plan” shall mean the Removal Action Work Plan attached hereto as Appendix E.

“Respondent” shall mean Barrick Gold U.S., Inc.

“Section” shall mean a portion of this Settlement Agreement identified by a Roman numeral.

“Settlement Agreement” shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXXI (Integration/Appendices). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

“Site” shall mean the abandoned Cordero Mine, including but not limited to the Affected Property. The Site also includes residential, commercial, institutional and governmental properties where calcine mine tailings from the Cordero Mine came to be located in and around the town of McDermitt, Nevada, and the Fort McDermitt Indian Reservation.

“Special Account” shall mean the “Cordero McDermitt Calcine Site Special Account” within the EPA Hazardous Substance Superfund, established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).

“State” shall mean the State of Nevada.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including the Federal Agencies.

“Waste Material” shall mean (a) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (d) any “hazardous material” under Nevada Revised Statutes § 459.7024.

“Work” shall mean all activities and obligations set forth in the Removal Action Work Plan, which Respondent is required to perform under this Settlement Agreement except those required by Section XI (Record Retention).

#### **IV. FINDINGS OF FACT**

12. The Site consists of the abandoned Cordero Mine, located in Humboldt County, Nevada, approximately 11 miles southwest of McDermitt, Nevada. The Site also includes residential, commercial and school properties where calcine tailings have come to be located in and around the town of McDermitt, Nevada, and on the Fort McDermitt Indian Reservation. The Affected Property, a calcine mercury tailings pile located within the Site is on federal land managed by BLM and on patented claims owned by the Respondent.

13. McDermitt, Nevada is an unincorporated community situated on the Nevada-Oregon border and encompasses approximately 13.2 square miles (8,448 acres) of land area. According to 2010 United States Census Bureau results, a total of 101 housing units are located within the McDermitt census-designated place.

14. Fort McDermitt Indian Reservation is located in Humboldt County, Nevada, approximately 2.7 miles south of McDermitt.

15. The Cordero Mine was located on federally owned land by Esuibio Aznaraez, Tomás Alcorta and Juan Ondarza in 1929 when they staked unpatented lode claims. The claims were leased to Bradley Mining Company in 1933, which operated the mine until approximately 1939. In 1939, Horse Heaven Mining Company acquired the lease to the Cordero Mine and proceeded to mine mercury from surface and pit mining. All of Horse Heaven Mining Company's stock was acquired by Sun Oil Company in 1936. In 1941, Sun Oil Company formed a new subsidiary, Cordero Mining Company. By 1946, Horse Heaven Mining Company had sold all of its mining interests to Cordero Mining Company and Horse Heaven Mining Company was dissolved. In 1943, underground mining commenced at the Cordero Mine. In 1967, the Cordero Mine lease and the Cordero Mine assets were acquired by the Fred H. Lenway Company, which operated the mine until 1970 when the mine was permanently closed.

16. In 1972, the Cordero Mining Company was liquidated into its parent, the Sun Oil Company. In 1975, Cordero Mining Company was dissolved, and the Sun Oil Company changed its name to Sun Company and eventually to Sunoco, Inc.

17. The Fred H. Lenway Company was subsequently acquired by Keystone Resources in 1974. In 1978 Associated Metals and Minerals Corporation purchased Keystone-Lenway in 1978 and formed a subsidiary, AMMC California. In 1982, the company was purchased by Trans-Global Resources, Inc. the current successor to the Fred H. Lenway Company.

18. In 1970, following the closure of the Cordero Mine, Sierra Mineral Management Company, as general partner of the Mineral Exploration Company, Ltd. of New Jersey, acquired the leases to the Cordero Mine and surrounding area. In 1972, an option was granted to American Exploration and Mining Company ("Amex") that resulted in a joint venture between Mineral Exploration Company (49%) and Amex, Inc. (51%). In 1973, Amex changed its name to Placer Amex, Inc., 100% owned by Placer Development Limited of Canada, and took the lead in exploration and ultimate development of the McDermitt Mine in 1975.

19. The McDermitt Mine operated from 1975 until its closure in 1990 and employed a process that did not generate calcine tailings. During 1979 and 1980, Placer Amex acquired patents on a number of claims that cover the McDermitt Mine and most of the waste dumps and tailings pond, including patents covering portion of the Cordero Mine calcine mercury tailings pile. In 1983, the joint venture agreement was reconfigured to include Placer U.S. Inc., successor to Placer Amex, Inc., and Sterling Mineral Venture, a joint venture between Mineral Exploration Company and Sterling Venture Ltd., a New Jersey partnership.

20. In 1987, Placer U.S. Inc. changed its name to Placer Dome U.S. Inc. In 2006, Barrick Gold Corporation acquired 100% of the stock of Placer Dome Inc. which owned 100% of the stock of Placer Dome U.S. Inc. In 2007, Placer Dome U.S. Inc. was renamed Barrick Gold U.S., Inc. Ownership of the patented claims remains with the joint venture in which Barrick Gold U.S., Inc. is the majority partner (51%). Calcined mercury tailings from the Cordero Mine are located on the patented claims owned by Barrick Gold U.S., Inc. and on federal land, managed by BLM.



21. In September 2010, EPA initiated a removal assessment based on the results of a 2009 site visit that had been requested by the Fort McDermitt Paiute and Shoshone Tribe. Several study areas were identified for assessment sampling: the Fort McDermitt Indian Reservation; the McDermitt Combined School; roadways in the area of McDermitt; the former Cordero and McDermitt mines; and seasonal surface water drainage pathways downgradient of the Cordero and McDermitt mines. Results of this removal assessment indicated elevated levels of mercury and arsenic at multiple locations including the McDermitt Combined School, numerous roadways in the town of McDermitt and at two locations on the Fort McDermitt Indian Reservation (including one residential driveway and the dirt road leading to the Tribal transfer station).

22. In June 2011, EPA and the U.S. Geological Survey collected 23 surface soil and calcined tailings samples, with the intent of evaluating the bioavailability of mercury and arsenic. This included analyzing the samples for total mercury, methyl mercury and elemental mercury, conducting sequential extraction analyses, and analyzing mercury speciation by Extended X-Ray Fluorescence (EXAFS) at the Stanford Synchrotron Radiation Lightsource (SSRL). This data was used to support the calculation of site-specific removal action levels for mercury and arsenic. EPA identified the following site-specific health-based removal action levels for residential soil: 80 parts per million (ppm) mercury and 60 ppm arsenic in residential soil. EPA did not calculate site-specific removal action levels for non-residential soil, but instead relied on the EPA Region IX Regional Screening Levels (RSLs) of 310 ppm for mercuric chloride (and other mercury salts) and 160 ppm for arsenic.

23. In June 2012, EPA conducted residential soil sampling of properties where it was believed that calcined tailings may have been used as fill. EPA received permission to sample approximately 60 properties. Soil samples were only collected at properties where calcined tailings were observed to be present. Thirty-two (32) of fifty-two (52) locations sampled were determined to have mercury or arsenic contamination in excess of the site-specific removal action levels.

24. During the course of conducting the removal assessment, EPA researched the origin of the calcined tailings found in the town of McDermitt and the Fort McDermitt Indian Reservation, including numerous interviews with residents. It is EPA's understanding that local contractors, residents and municipal organizations used calcined tailings from the Affected Property as fill at multiple locations within and around the town of McDermitt and the Fort McDermitt Indian Reservation. Calcined tailings also appear to have been used in road construction in multiple locations in northern Humboldt County, NV and southern Malheur County, OR.

25. Mercury and arsenic are naturally occurring elements, and can be detected in background concentrations. Analytical results indicate that concentrations of mercury and arsenic identified in the soil media, exceed background and risk-based levels determined by EPA for this Site. Mercury is a hazardous substance as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14). Mercury exposure occurs from breathing air contaminated with mercury, ingesting contaminated water and food. Mercury, at high levels of exposure, may cause damage to the brain, kidneys and developing fetus. Effects on brain functioning may result in irritability, tremors, changes in vision or hearing, and memory problems. The nervous system is very

sensitive to all forms of mercury. Short-term exposure to high levels of mercury vapors can cause lung damage, nausea, vomiting, diarrhea, increased blood pressure or heart rate, skin rashes and eye irritation. Young children are more sensitive to mercury than adults.

26. Young children and adults may experience adverse health effects when exposed to elevated concentrations of arsenic and other metals in the soil. The primary route of exposure is via incidental ingestion of the contaminated soil. Direct ingestion of contaminated soil can result from actual consumption of soil or through the mouthing of contaminated objects. Children are the most susceptible to exposure through this pathway. Other routes of exposure include inhalation of wind-blown soil particles and dermal contact with the soil.

27. Excess exposure to arsenic is known to cause a variety of adverse health effects in humans. These effects depend on exposure level and duration. Arsenic is a known human carcinogen. Inhalation exposure is associated with increased risk of lung, gastrointestinal, renal or bladder cancer. Oral exposure to arsenic is associated with skin, liver, and bladder cancer. At very high doses, oral exposure to arsenic elicits nausea and vomiting. Lower doses over a chronic time period may elicit skin abnormalities (such as hyperkeratosis), and kidney and liver toxicity.

28. An Action Memorandum was prepared for the Site on October 16, 2012 addressing contamination of yards, driveways and other fill locations in or near the town of McDermitt and the Fort McDermitt Indian Reservation. A copy is attached as Appendix F to this Settlement Agreement.

29. On October 16, 2012, EPA issued a Unilateral Administrative Order No. 9-2012-10 ("UAO") to both Barrick Gold U.S., Inc. and Sunoco, Inc. requiring the parties to carry out a removal action in and near the town of McDermitt to address mercury calcine tailings that had been placed in various residential yards, school yards and on the Fort McDermitt Indian Reservation. Both Barrick Gold U.S., Inc. and Sunoco, Inc. declined to comply with the UAO.

30. Beginning on April 15, 2013 and continuing through May 23, 2013, EPA Region 9 carried out removal activities under CERCLA to address the calcine tailings discovered in and around the town of McDermitt and the Fort McDermitt Indian Reservation. Residential yard work in and around the town of McDermitt consisted of removing calcine material, placing clean backfill material and compacting. At a few larger properties, calcine material was not removed, but rather a cover of clean material was placed over top. In total 56 residential properties (54 in town and 2 at the Reservation) were addressed. In and around the town of McDermitt, 417,491 square feet ("sq. ft.") of calcine tailings at 54 residential properties were addressed by the response action. Of the 417,491 sq. ft., 5,942 cubic yards ("cy") of calcine tailings was excavated from 378,090 sq. ft. at 41 residential properties, and 39,401 sq. ft. of calcine tailings was capped at 13 residential properties. At the Fort McDermitt Indian Reservation, 82 cy of calcine tailings was excavated from 6,197 sq. ft. at two residential properties. EPA is not aware of any additional residential yards where calcine material was not addressed.

31. At the McDermitt Combined School, cover material was placed over the east side of the football field, the large parking area adjacent to the football field, and the areas surrounding the playground. At the McDermitt School property, 311,682 sq. ft. of calcine

tailings was addressed by the response action. Of the 311,682 sq. ft., 594 cy of calcine tailings was excavated from 45,958 sq. ft. located immediately east of the north-eastern school football field, 247,231 sq. ft. (5.56 acres) of calcine tailings was capped at the school parking lot, and 18,493 sq. ft. of calcine tailings was capped at the school playground.

32. A total of 40,410 sq. ft. of calcine tailings was capped at two unpaved roads located just east of Buckskin and Reeves Roads in the town of McDermitt. This work was performed in conjunction with the McDermitt General Improvement District. Additionally, EPA provided backfill material to Malheur County, Oregon in order to cap 25,270 sq. ft. of calcine tailings at one unpaved road, identified as Margarita Road and located west of US 95. At the Fort McDermitt Indian Reservation, 25,586 sq. ft. of calcine tailings was capped at one unpaved access road leading to the Tribal transfer station.

33. On April 19, 2013, BLM signed a time critical removal action memorandum under CERCLA authorizing the temporary consolidation of the excavated calcine material from the town of McDermitt and the Fort McDermitt Indian Reservation on the portion of the calcine pile located on federal land managed by BLM. Appendix G. By May 18, 2013, a total of approximately 10,000 tons of calcine material excavated from the town of McDermitt and the Fort McDermitt Indian Reservation was transported and placed at the Cordero calcine tailings pile within the Affected Property. The Emergency and Rapid Response Services contractor regraded the area of the calcine tailings pile where material was placed, in order to match the existing grade of the calcine tailings pile. The portion of the chain link fence at the calcine pile, which had been removed in order to allow truck access, was replaced. As of March 5, 2015, EPA had incurred approximately \$2.38 million in Past Response Costs for this Site.

34. As part of the ongoing removal action at this Site, the Cordero calcine tailings pile within the Affected Property must be addressed to prevent future human and ecological exposure to mercury and arsenic contained in the calcine tailings.

35. On June 8, 2017, an Action Memorandum was prepared by BLM to address the the Cordero calcine tailings pile. Appendix A. The administrative record supporting the response action will be available for review at BLM, Winnemucca District Office, 5100 E Winnemucca Blvd, Nevada, 89445.

## **V. CONCLUSIONS OF LAW AND DETERMINATIONS**

36. Based on the Findings of Fact set forth above, and the administrative record, the Federal Agencies have determined that:

a. The Cordero-McDermitt Calcine Pile Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination, including the calcine tailings, found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). Respondent is the “owner” of a portion of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

e. The conditions described in the Findings of Fact above constitute an actual or threatened “release” of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The Lead Agency determined in an Action Memorandum dated June 8 2017, that the conditions described in the Findings of Fact above may constitute an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the facility within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). The removal action required by this Settlement Agreement is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement Agreement, will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

## **VI. SETTLEMENT AGREEMENT AND ORDER**

37. Based upon the Findings of Fact, Conclusions of Law, and Determinations set forth above, and the administrative record, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

## **VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR**

38. Respondent may retain one or more contractors or subcontractors to perform the Work and shall notify the Lead Agency of the name(s) and qualifications of such contractor(s) or subcontractor(s) within thirty (30) days after the Effective Date. Respondent shall also notify the Lead Agency of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least five (5) days prior to commencement of such Work. The Lead Agency retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If the Lead Agency disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify the Lead Agency of that contractor’s or subcontractor’s name and qualifications within fourteen (14) days after the Lead Agency’s disapproval.

39. Respondent has designated, and the Lead Agency has not disapproved, the following individual as Project Coordinator, who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement:

Clark Burton  
2270 Corporate Circle, Suite 100  
Henderson, NV 89074  
(702) 522-6938  
cburton@barrick.com

40. Respondent has designated, and the Lead Agency has not disapproved, the following individual as Assistant Project Coordinator, who shall have the responsibility and authority of the Project Coordinator, in the event the Project Coordinator is unavailable:

Kevin Hamatake  
460 West 50 North, Suite 500  
Salt Lake City, UT 84101  
(801) 990-4833  
khamatake@barrick.com

41. To the greatest extent possible, the Project Coordinator or the Assistant Project Coordinator shall be present on-Site or readily available during Site work. The Lead Agency has designated Kurt Miers of the BLM, as its On-Scene Coordinator (OSC). EPA, as supporting agency, designates Tom Dunkelman as the Secondary OSC. The Federal Agencies and Respondent have the right, subject to Paragraph 38, to change their respective designated OSC or Project Coordinator. Respondent shall notify the Federal Agencies fourteen (14) days before such a change is made. The initial notification by Respondent may be made orally, but shall be promptly followed by a written notice to the Federal Agencies' respective OSC.

42. The OSC shall be responsible for overseeing Respondent's implementation of this Settlement Agreement. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC. The OSC shall be the point of contact for the Federal Agencies for any correspondence, notices and deliverables required of the Respondent. In the event that the Lead Agency OSC is unavailable, the Secondary OSC will be the temporary point of contact. The Lead Agency OSC contact information is:

Kurt Miers  
Environmental Protection Specialist  
Bureau of Land Management  
Winnemucca District Office  
5100 E Winnemucca Blvd  
Winnemucca, NV 89445  
(775) 623-1569  
kmiers@blm.gov

The Secondary OSC's contact information is:

Tom Dunkelman  
U.S. Environmental Protection Agency  
2730 North Deer Run Road  
Carson City, NV 89701  
(775) 721-4712  
dunkelman.tom@epa.gov

## **VIII. WORK TO BE PERFORMED**

43. Respondent shall perform all actions necessary to implement the Action Memorandum and attached Removal Action Work Plan.

44. For any regulation or guidance referenced in the Settlement Agreement, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondent receives notification from the Lead Agency of the modification, amendment, or replacement.

### **45. Removal Action Work Plan and Implementation**

a. Respondent shall commence implementation of the Work in accordance with the Removal Action Workplan and the schedule included therein. Respondent shall not commence or perform any Work except in conformance with the terms of this Settlement Agreement. The Removal Action Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement.

b. Unless otherwise provided in this Settlement Agreement, any additional deliverables that require Lead Agency approval under the Removal Action Work Plan shall be reviewed and approved by the Lead Agency in accordance with this Paragraph.

### **46. Submission of Deliverables.**

#### **a. General Requirements for Deliverables.**

(1) Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to the Lead Agency OSC. Respondent shall submit all deliverables required by this Settlement Agreement, or Removal Action Work Plan to the Lead Agency with an electronic copy to the Secondary OSC in accordance with the schedule set forth in the Removal Action Work Plan.

47. Health and Safety Plan. Respondent has submitted, and the Lead Agency has approved, a plan that ensures the protection of the public health and safety during performance of on-Site work under this Settlement Agreement. Respondent shall implement the plan during the pendency of the removal action.

48. Post-Removal Site Control. Respondent shall take the following actions concerning Post-Removal Site Control:

Comply with the attached Inspection and Maintenance Plan;

Execute and record the attached Environmental Covenant running with the land within thirty (30) days of the issuance of the Notice of Completion of Work pursuant to Section XXVII of the Settlement Agreement.

Respondent shall either conduct Post-Removal Site Control activities, or obtain a written commitment from another party for conduct of such activities, until such time as the Lead Agency determines that no further Post-Removal Site Control is necessary. Respondent shall provide the Lead Agency with documentation of all Post-Removal Site Control commitments.

49. Progress Reports. Respondent shall submit a written progress report to the Federal Agencies through their respective OSCs concerning actions undertaken pursuant to this Settlement Agreement on a monthly basis, or as otherwise requested by the Lead Agency OSC, from the date of receipt of the Federal Agencies' approval of the Removal Action Work Plan until issuance of Notice of Completion of Work pursuant to Section XXVII, unless otherwise directed in writing by the Lead Agency OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

50. Final Report. Within thirty (30) days after completion of the Work required by this Settlement Agreement, other than continuing obligations listed in Paragraph 126 (Notice of Completion), Respondent shall submit for the Lead Agency's review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). **The final report shall also include the following certification signed by a responsible corporate official of a Respondent or Respondent's Project Coordinator:**

**"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the**

**best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."**

51. Off-Site Shipments.

a. Respondent may ship hazardous substances, pollutants and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent will be deemed to be in compliance with CERCLA Section 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondent obtains a prior determination from the Lead Agency OSC that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b).

b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide written notice to the appropriate state environmental official in the receiving facility's state and to the Lead Agency OSC. This written notice requirement shall not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent also shall notify the state environmental official referenced above and the Lead Agency OSC of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondent shall provide the written notice after the award of the contract for the removal action and before the Waste Material is shipped.

c. Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA's "Guide to Management of Investigation Derived Waste," OSWER 9345.3-03FS (Jan. 1992), and any IDW-specific requirements contained in the Action Memorandum. Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 C.F.R. § 261.4(e) shipped off-Site for treatability studies, are not subject to 40 C.F.R. § 300.440.

## **IX. PROPERTY REQUIREMENTS**

52. Commencing on the Effective Date, where access is needed to the Affected Property owned or controlled by Respondent to implement this Settlement Agreement, Respondent shall provide the Federal Agencies and their representatives, including contractors, with access at all reasonable times to such property, for the purpose of conducting any activity related to this Settlement Agreement, including but not limited to the Access Requirements in Paragraph 54.



53. BLM shall provide EPA and Respondent and their representatives, contractors, and subcontractors, with access at all reasonable times to the Affected Property located on federal land managed by BLM to conduct any activity related to this Settlement Agreement.

54. Access Requirements. The following is a list of activities for which access under Paragraphs 52 and 53 above is required regarding the Affected Property.

- (1) Implementing or Monitoring the Work;
- (2) Verifying any data or information submitted to the United States or the State;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining samples;
- (5) Assessing the need for, planning, implementing, or monitoring response actions;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved quality assurance quality control plan, as provided in the approved Removal Action Work Plan;
- (7) Implementing the Work pursuant to the conditions set forth in Paragraph 103 (Work Takeover);
- (8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or their agents, consistent with Section X (Access to Information);
- (9) Assessing Respondent's compliance with the Settlement Agreement;
- (10) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Settlement Agreement; and
- (11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions and any Institutional Controls or Proprietary Controls regarding the Affected Property.

b. Land, Water, or Other Resource Use Restrictions. The following is a list of land, water, or other resource use restrictions applicable to the Affected Property owned by Respondent:

- (1) Prohibiting any digging or drilling activities which could result in exposure to contaminants in subsurface soils and groundwater;

(2) Ensuring that any new structures on the Affected Property will not be constructed in a manner that could interfere with the implementation of the removal action or affect the integrity of the completed removal action.

55. Best Efforts. As used in this Section, "best efforts" means the efforts that a reasonable person in the position of Respondent would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, as required by this Section. If Respondent is unable to accomplish what is required through "best efforts" in a timely manner, they shall notify the Federal Agencies, and include a description of the steps taken to comply with the requirements. If the Federal Agencies deem it appropriate, they may assist Respondent, or take independent action, in obtaining such access and/or use restrictions. All costs incurred by the United States in providing such assistance or taking such action, including the cost of attorney time and the amount of monetary consideration or just compensation paid, constitute Future Response Costs to be reimbursed under Section XIV (Payment of Response Costs).

56. Proprietary Controls. The attached Environmental Covenant, Appendix D, is granted to the State and Respondent shall record the executed Environmental Covenant within thirty (30) days of the issuance of the Notice of Completion of Work pursuant to Section XXVII of the Settlement Agreement. Within thirty (30) days prior to recording of the Environmental Covenant, Respondent will secure a title examination. If the title examination indicates that no liens, claims, rights, or encumbrances have been recorded that impair the enforceability of the Environmental Covenant, Respondent shall secure the recordation of the Environmental Covenant in the appropriate land records consistent with this Paragraph. Otherwise, Respondent shall secure the release, subordination, modification, or relocation regarding any newly-discovered liens, claims, rights, and encumbrances, prior to recording the Environmental Covenant.

57. Respondent shall, within thirty (30) days after recording the Environmental Covenant, or such other deadline approved by the Federal Agencies, provide to the Federal Agencies and to all grantees of the Environmental Covenant: (i) certified copies of the Environmental Covenant showing the clerk's recording stamps; and (ii) the title insurance policy(ies) or other approved form of updated title evidence dated as of the date of recording of the Environmental Covenant.

58. Respondent shall refrain from using such Affected Property in any manner that the Federal Agencies determine will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation, integrity, or protectiveness of the removal action including the restrictions listed in Paragraph 54.b (Land, Water, or Other Resource Use Restrictions).

59. Respondent shall not Transfer its Affected Property unless it has first recorded the Environmental Covenant approved by the Federal Agencies pursuant to Paragraph 56.

60. If the Federal Agencies determine in a decision document prepared in accordance with the NCP that institutional controls in the form of state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices are needed, Respondent shall

cooperate with the Federal Agencies' efforts to secure and ensure compliance with such institutional controls.

61. In the event of any Transfer of the Affected Property, unless the Federal Agencies otherwise consent in writing, Respondent shall continue to comply with its obligations under the Settlement Agreement, including its obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Affected Property and to implement, maintain, monitor and report on Institutional Controls.

62. Notice to Successors-in-Title.

a. Respondent shall, within fifteen (15) days after the Effective Date, submit for the Federal Agencies' approval a notice to be filed regarding Respondent's Affected Property in the appropriate land records. The notice must: (1) include a proper legal description of the Affected Property; (2) provide notice to all successors-in-title that: (i) the Affected Property is part of, or related to, the Site; (ii) the Federal Agencies have selected a removal action for the Site; and (iii) the Respondent has entered into an Administrative Settlement Agreement and Order on Consent requiring implementation of that removal action; and (3) identify the name, docket number, and Effective Date of this Settlement Agreement. Respondent shall record the notice within ten (10) days after the Federal Agencies' approval of the notice and submit to the Federal Agencies, within 10 days thereafter, a certified copy of the recorded notice.

b. Respondent shall, prior to entering into a contract to Transfer its Affected Property, or sixty (60) days prior to Transferring its Affected Property, whichever is earlier:

(1) Notify the proposed transferee that the Federal Agencies have selected a removal action regarding the Site, that potentially responsible parties have entered into an Administrative Settlement Agreement and Order on Consent requiring implementation of such removal action, (identifying the name, docket number, and the Effective Date of this Settlement Agreement); and

(2) Notify the Federal Agencies and the State of the name and address of the proposed transferee and provide the Federal Agencies and the State with a copy of the above notice that it provided to the proposed transferee.

63. Notwithstanding any provision of the Settlement Agreement, the Federal Agencies and the State retain all of their access authorities and rights, as well as all of their rights to require land, water, or other resource use restrictions and Institutional Controls, including enforcement authorities related thereto under CERCLA, RCRA, and any other applicable statute or regulations.

## **X. ACCESS TO INFORMATION**

64. Respondent shall provide to the Federal Agencies and the State, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Respondent's possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, including, but not

limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent shall also make available to the Federal Agencies and the State, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

65. Privileged and Protected Claims.

a. Respondent may assert all or part of a Record requested by the Federal Agencies or the State is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent comply with Paragraph 65.b, and except as provided in Paragraph 65.c.

b. If Respondent asserts such a privilege or protection, it shall provide the Federal Agencies and the State with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to the Federal Agencies and the State in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that it claims to be privileged or protected until the Federal Agencies and the State have had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in Respondent's favor.

c. Respondent may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Settlement Agreement.

66. Business Confidential Claims. Respondent may assert that all or part of a Record provided to the Federal Agencies and the State under this Section or Section XI (Record Retention) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Settlement Agreement for which Respondent asserts business confidentiality claims. Records submitted to the Federal Agencies determined to be confidential by the Federal Agencies will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to the Federal Agencies and the State, or if the Federal Agencies has notified Respondent that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

67. Notwithstanding any provision of this Settlement Agreement, the Federal Agencies and the State retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

## **XI. RECORD RETENTION**

68. Until ten (10) years after the Federal Agencies provide Respondent with notice, pursuant to Section XXVII (Notice of Completion of Work), that all Work has been fully performed in accordance with this Settlement Agreement, Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in their possession or control, or that come into their possession or control, that relate in any manner to their liability under CERCLA with regard to the Site, provided, however, that Respondent who is potentially liable as an owner of the Site must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in their possession or control or that come into their possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractors and agents) must retain, in addition, copies of all data generated during the performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

69. At the conclusion of the document retention period, Respondent shall notify the Federal Agencies and the State at least ninety (90) days prior to the destruction of any such Records, and, upon request by the Federal Agencies or the State, and except as provided in Paragraph 65 (Privileged and Protected Claims), Respondent shall deliver any such Records to the Federal Agencies or the State.

70. Respondent certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by the Federal Agencies or the State and that it has fully complied with any and all the Federal Agencies and State requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, and state law.

## **XII. COMPLIANCE WITH OTHER LAWS**

71. Nothing in this Settlement Agreement limits Respondent's obligations to comply with the requirements of all applicable state and federal laws and regulations, except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by the Federal Agencies, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws. Respondent has identified Relevant Standards, including ARARs, in the Removal Action Work Plan approved by the Lead Agency.

72. No local, state, or federal permit shall be required for any portion of the Work conducted entirely on-Site (i.e., within the areal extent of contamination or in very close

proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work that is not on-Site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. Respondent may seek relief under the provisions of Section XVI (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval required for the Work, provided that they have submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

### **XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES**

73. Emergency Response. If any event occurs during performance of the Work that causes or threatens to cause a release of Waste Material on, at, or from the Affected Property that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan. Respondent shall also immediately notify the Lead Agency OSC or, in the event of his/her unavailability, the Secondary OSC of the incident or Site conditions. If neither is available, Respondent shall notify the EPA Regional Duty Officer at 1-800-300-2193 of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and the Federal Agencies take such action instead, Respondent shall reimburse the Federal Agencies for all costs of such response action not inconsistent with the NCP pursuant to Section XIV (Payment of Response Costs).

74. Release Reporting. Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately orally notify the Lead Agency OSC or, in the event of his/her unavailability, the Secondary OSC. If neither is available, Respondent shall immediately orally notify the EPA Regional Duty Officer at 1-800-300-2193, and the National Response Center at (800) 424-8802. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

75. For any event covered under this Section, Respondent shall submit a written report to the Federal Agencies within seven (7) days after the onset of such event, setting forth the action or event that occurred and the measures taken, and to be taken, to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release.

### **XIV. PAYMENT OF RESPONSE COSTS**

76. Payment for Past Response Costs.

a. Within thirty (30) days after the Effective Date, Respondent shall pay to the EPA \$230,000 for Past Response Costs. Respondent shall make payment to EPA by Fedwire Electronic Funds Transfer (EFT) to:

Federal Reserve Bank of New York  
ABA = 021030004  
Account = 68010727  
SWIFT address = FRNYUS33  
33 Liberty Street  
New York, NY 10045  
Field Tag 4200 of the Fedwire message should read "D 68010727 Environmental Protection Agency"

and shall reference Site/Spill ID Number NVD067813006 and the EPA docket number 2017-04 for this action.

b. At the time of payment, Respondent shall send notice that payment has been made to the Secondary OSC at the address provided in Paragraph 42, and to the EPA Cincinnati Finance Office by email at [cinwd\\_acctsreceivable@epa.gov](mailto:cinwd_acctsreceivable@epa.gov), or by mail to

EPA Cincinnati Finance Office  
26 W. Martin Luther King Drive  
Cincinnati, Ohio 45268

Such notice shall reference Site/Spill ID Number NVD067813006 and the EPA docket number 2017-04 for this action.

c. Deposit of Past Response Costs Payments. The total amount to be paid by Respondent pursuant to Paragraph 76 shall be deposited by EPA in the Cordero McDermitt Calcine Site Special Account.

77. Payments for Future Response Costs. Respondent shall pay to the Federal Agencies all Future Response Costs not inconsistent with the NCP.

a. Prepayment of Future Response Costs.

Within thirty (30) days after the Effective Date, Respondent shall pay to BLM \$50,000 as an initial payment toward Future Response Costs. Respondent shall make payment to the DOI's Central Hazardous Materials Fund (CHF) by automated clearing-house known as the Department of the Treasury's Automated Clearing House (ACH)/Remittance Express program as follows:

Receiver name:	Central Hazardous Materials Fund ALC 14010001
Receiver Tax ID Number:	53-0196949
Receiver address:	7401 West Mansfield Ave. Mailstop D-2777 Lakewood, CO 80235

Receiver bank: Federal Reserve Bank  
New York, NY  
ABA # 051036706

Receiver ACH Account No.: 312024

Respondent shall send notification of its payment referencing the amount of its payment and the Site name to the following individuals:

U.S. Department of the Interior  
Office of Environmental Policy and Compliance  
Jamey Watt  
Central Hazardous Materials Fund Manager  
1849 C Street, NW, MS 5538  
Washington, DC 20240

Nathalie Doherty  
U.S. Department of the Interior  
Office of the Solicitor  
805 SW Broadway, Suite 600  
Portland, OR 97205

These funds shall be retained and used by BLM for Future Response Costs at or in connection with the Site.

b. Additional Future Response Costs

(1) Respondent shall pay to EPA all Future Response Costs incurred by EPA that are not inconsistent with the National Contingency Plan, excluding the first \$30,000 of Future Response Costs incurred by EPA. Payments shall be made pursuant to the payment instructions for EPA Past Response Costs in Paragraph 76 and include instructions to deposit the payments into the Cordero McDermitt Calcine Site Special Account.

(2) Respondent shall pay to BLM all Future Response Cost incurred by BLM that are not inconsistent with National Contingency Plan, excluding the first \$50,000 made by Respondent as Prepayment of Future Response Costs to BLM in Paragraph 77.a of this Section.

c. Shortfall Payments. If at any time, the balance of the payment of Future Response Costs to BLM falls below \$10,000 or Future Response costs incurred by EPA exceed \$20,000, the Federal Agencies will so notify Respondent (Notice of Shortfall).

d. Periodic Bills. On a periodic basis, following Notice of Shortfall, the Federal Agencies will send Respondent a bill requiring payment that includes a cost summary. The cost summary will include direct and indirect costs incurred by the Federal Agencies, its contractors, subcontractors, and the United States Department of Justice. Respondent shall make all payments within thirty (30) days after Respondent's receipt of each bill requiring payment, except as otherwise provided in Paragraph 79 (Contesting Future Response Costs). Payment



shall be made to EPA in accordance with Paragraph 76 (Payment for Past Response Costs) and include instructions to deposit the payment into the Cordero McDermitt Calcine Site Special Account, and to BLM in accordance with Paragraph 77 (Prepayment of Future Response Costs). These funds shall be retained and used by the Federal Agencies to conduct or finance past and future response actions at or in connection with the Site.

e. Deposit of Future Response Costs Payments. The total amount to be paid by Respondent pursuant to Paragraph 77.d (Periodic Bills) shall be deposited by BLM into the DOI CHF or by EPA in the Cordero McDermitt Calcine Site Special Account. EPA may deposit an Additional Future Response Costs payment directly into the EPA Hazardous Substance Superfund if, at the time the payment is received, EPA estimates that the Cordero McDermitt Calcine Site Special Account balance is sufficient to address the Work.

f. Unused Amount. After the Federal Agencies issue the Notice of Completion of Work pursuant to Paragraph 126 and a final accounting of the payment of Future Response Costs to BLM or to the EPA Cordero McDermitt Calcine Site Special Account, the Federal Agencies will remit and return to Respondent any unused amount of the Additional Future Response Cost funds paid by Respondent into the Cordero McDermitt Calcine Site Special Account or into the DOI CHF.

78. Interest. In the event that any payment for Past Response Costs or Future Response Costs is not made by the date required, Respondent shall pay Interest on the unpaid balance. The Interest on Past Response Costs and prepaid Future Response Costs shall begin to accrue on the Effective Date. The Interest on all subsequent Future Response Costs shall begin to accrue on the date of the bill or on the date of the prepayment shortfall notice pursuant to Paragraph 77.c. The Interest shall accrue through the date of Respondent's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Paragraph 90 (Stipulated Penalties - Work).

79. Contesting Future Response Costs. Respondent may initiate the procedures of Section XV (Dispute Resolution) regarding payment of any Future Response Costs billed under Paragraph 77 (Payments for Future Response Costs) if they determine that the Federal Agencies have made a mathematical error or included a cost item that is not within the definition of Future Response Costs, or if they believe the Federal Agencies incurred excess costs as a direct result of the Federal Agencies' action that was inconsistent with a specific provision or provisions of the NCP. To initiate such dispute, Respondent shall submit a Notice of Dispute in writing to the Lead Agency OSC within thirty (30) days after receipt of the bill. Any such Notice of Dispute shall specifically identify the contested Future Response Costs and the basis for objection. If Respondent submits a Notice of Dispute, Respondent shall within the 30-day period, also as a requirement for initiating the dispute, (a) pay all uncontested Future Response Costs to the Federal Agencies in the manner described in Paragraph 77, and (b) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC) and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondent shall send to the Lead Agency OSC a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of

the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. If the Federal Agencies prevail in the dispute, within five (5) days after the resolution of the dispute, Respondent shall pay the sums due (with accrued interest) to the Federal Agencies in the manner described in Paragraph 77. If Respondent prevails concerning any aspect of the contested costs, Respondent shall pay that portion of the costs (plus associated accrued Interest) for which they did not prevail to the Federal Agencies in the manner described in Paragraph 77. Respondent shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse the Federal Agencies for its Future Response Costs.

## **XV. DISPUTE RESOLUTION**

80. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

81. Informal Dispute Resolution. If Respondent objects to any of the Federal Agencies' actions taken pursuant to this Settlement Agreement, including billings for Additional Future Response Costs, it shall send the Federal Agencies a written Notice of Dispute describing the objection(s) within thirty (30) days after such action. The Federal Agencies and Respondent shall have thirty (30) days from the Federal Agencies' receipt of Respondent's Notice of Dispute to resolve the dispute through informal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of the Lead Agency. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement.

82. Formal Dispute Resolution. If the Parties are unable to reach an agreement within the Negotiation Period, Respondent shall, within twenty (20) days after the end of the Negotiation Period, submit a statement of position to the Lead Agency OSC. The Federal Agencies may, within twenty (20) days thereafter, submit a statement of position. Thereafter, on behalf of the Federal Agencies, the BLM Nevada State Director will issue a written decision on the dispute to Respondent. The Federal Agencies' decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with the Federal Agencies' decision, whichever occurs.

83. Except as provided in Paragraph 79 (Contesting Future Response Costs) or as agreed to by the Federal Agencies, the invocation of formal dispute resolution procedures under this Section does not extend, postpone, or affect in any way any obligation of Respondent under this Settlement Agreement. Except as provided in Paragraph 93, stipulated penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Settlement Agreement. In the event

that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XVII (Stipulated Penalties).

## **XVI. FORCE MAJEURE**

84. "Force Majeure" for purposes of this Settlement Agreement, is defined as any event arising from causes beyond the control of Respondent, of any entity controlled by Respondent, or of Respondent's contractors that delays or prevents the performance of any obligation under this Settlement Agreement despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "Force majeure" does not include financial inability to complete the Work or increased cost of performance.

85. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement for which Respondent intends or may intend to assert a claim of force majeure, Respondent shall notify the Lead Agency's OSC orally or, in his or her absence, the Secondary OSC, or, in the event both of the Federal Agencies' designated representatives are unavailable, the Director of the Waste Management Division, EPA Region 9, within three (3) days of when Respondent first knew that the event might cause a delay. Within five (5) days thereafter, Respondent shall provide in writing to the Lead Agency an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a force majeure; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or welfare, or the environment. Respondent shall include with any notice all available documentation supporting their claim that the delay was attributable to a force majeure. Respondent shall be deemed to know of any circumstance of which Respondent, any entity controlled by Respondent, or Respondent's contractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude Respondent from asserting any claim of force majeure regarding that event, provided however, that if the Lead Agency despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 84 and whether Respondent has exercised its best efforts under Paragraph 84, the Lead Agency may, in its unreviewable discretion, excuse in writing Respondent's failure to submit timely or complete notices under this Paragraph.

86. If the Lead Agency agrees that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Settlement Agreement that are affected by the force majeure will be extended by the Lead Agency for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation. If the Lead Agency does not agree that the delay or anticipated delay has been or will be caused by a force majeure, the Lead Agency will notify Respondent in writing of its decision. If the Lead Agency agrees that the delay is attributable to a force majeure, the Lead

Agency will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.

87. If Respondent elects to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), it shall do so no later than fifteen (15) days after receipt of the Lead Agency's notice. In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of Paragraphs 84 and 85. If Respondent carries this burden, the delay at issue shall be deemed not to be a violation by Respondent of the affected obligation of this Settlement Agreement identified to the Federal Agencies.

88. The failure by the Federal Agencies to timely complete any obligation under the Settlement Agreement is not a violation of the Settlement Agreement, provided, however, that if such failure prevents Respondent from meeting one or more deadlines under the Settlement Agreement, Respondent may seek relief under this Section.

## **XVII. STIPULATED PENALTIES**

89. Respondent shall be liable to the Federal Agencies for stipulated penalties in the amounts set forth in Paragraphs 90 and 91 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVI (Force Majeure). "Compliance" by Respondent shall include completion of all activities and obligations, including payments, required under this Settlement Agreement, or any deliverable approved under this Settlement Agreement, in accordance with all applicable requirements of law, this Settlement Agreement, the attached Removal Action Work Plan, and any deliverables approved under this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

### **90. Stipulated Penalty Amounts - Work (Including Payments and Excluding Deliverables).**

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 90.b:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$1,000	15th through 30th day
\$3,000	31st day and beyond

b. Compliance Milestones. Failure to meet any requirement of this Settlement Agreement, including but not limited to, performing the Work as described in the Removal Action Work Plan or maintain the property requirements in Section IX (Property

Requirements), failure to timely make payments under Section XIV (Payment of Response Costs), or for establishing escrow accounts to hold disputed Future Response Costs.

91. Stipulated Penalty Amounts - Deliverables. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate deliverables pursuant to this Settlement Agreement:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$750	15th through 30th day
\$1,000	31st day and beyond

92. In the event that the Lead Agency assumes performance of a portion or all of the Work pursuant to Paragraph 103 (Work Takeover), Respondent shall be liable for a stipulated penalty in the amount of \$250,000. Stipulated penalties under this Paragraph are in addition to the remedies available to the Federal Agencies under Paragraph 103 (Work Takeover).

93. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. Penalties shall continue to accrue during any dispute resolution period, and shall be paid within fifteen (15) days after the agreement or the receipt of the Federal Agencies' decision or order. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Paragraph 45 (Removal Action Work Plan and Implementation), during the period, if any, beginning on the 31st day after the Lead Agency's receipt of such submission until the date that the Lead Agency notifies Respondent of any deficiency; and (b) with respect to a decision by the BLM Nevada State Director, under Paragraph 82 (Formal Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that final decision regarding such dispute is issued. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

94. Following the Lead Agency's determination that Respondent has failed to comply with a requirement of this Settlement Agreement, the Federal Agencies may give Respondent written notification of the failure and describe the noncompliance. The Federal Agencies may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether the Federal Agencies have notified Respondent of a violation.

95. All penalties accruing under this Section shall be due and payable within thirty (30) days after Respondent's receipt from EPA or BLM of a demand for payment of the penalties, unless Respondent invokes the Dispute Resolution procedures under Section XV (Dispute Resolution) within the 30-day period. All payments under this Section shall indicate that the payment is for stipulated penalties and shall be made in accordance with Paragraph 77 (Payments for Future Response Costs).

96. If Respondent fails to pay stipulated penalties when due, Respondent shall pay Interest on the unpaid stipulated penalties as follows: (a) if Respondent has timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the outcome of dispute resolution, Interest shall accrue from the date stipulated penalties are due pursuant to Paragraph 93 until the date of payment; and (b) if Respondent fails to timely invoke dispute resolution, Interest shall accrue from the date of demand under Paragraph 95 until the date of payment. If Respondent fails to pay stipulated penalties and Interest when due, the United States may institute proceedings to collect the penalties and Interest.

97. The payment of penalties and Interest, if any, shall not alter in any way Respondent's obligation to complete the performance of the Work required under this Settlement Agreement.

98. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of the Federal Agencies' to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), provided however, that the Federal Agencies shall not seek civil penalties pursuant to Section 106(b) or Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Settlement Agreement, except in the case of a willful violation of this Settlement Agreement or in the event that the Lead Agency assumes performance of a portion or all of the Work pursuant to Paragraph 103 (Work Takeover).

99. Notwithstanding any other provision of this Section, the Federal Agencies may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

## **XVIII. COVENANTS BY THE FEDERAL AGENCIES**

100. Except as provided in Section XIX (Reservations of Rights by the Federal Agencies), the Federal Agencies' covenant not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work, Past Response Costs, and Future Response Costs. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the complete and satisfactory performance by Respondent of their obligations under this Settlement Agreement. These covenants extend only to Respondent and do not extend to any other person.

## **XIX. RESERVATIONS OF RIGHTS BY THE FEDERAL AGENCIES**

101. Except as specifically provided in this Settlement Agreement, nothing in this Settlement Agreement shall limit the power and authority of the Federal Agencies or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site.

Further, nothing in this Settlement Agreement shall prevent the Federal Agencies from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

102. The covenants set forth in Section XVIII (Covenants by the Federal Agencies) do not pertain to any matters other than those expressly identified therein. The Federal Agencies reserve, and this Settlement Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

- a. liability for failure by Respondent to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definitions of Past Response Costs or Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for violations of federal or state law that occur during or after implementation of the Work;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- h. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site not paid as Future Response Costs under this Settlement Agreement.

103. Work Takeover.

a. In the event the Lead Agency determines that Respondent: (1) has ceased implementation of any portion of the Work; (2) is seriously or repeatedly deficient or late in its performance of the Work; or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, the Lead Agency may issue a written notice ("Work Takeover Notice") to Respondent. Any Work Takeover Notice issued by the Lead Agency (which writing may be electronic) will specify the grounds upon which such notice was issued and will provide Respondent a period of three (3) days within which to remedy the circumstances giving rise to the Lead Agency's issuance of such notice.

b. If, after expiration of the 3-day notice period specified in Paragraph 103.a, Respondent has not remedied to the Lead Agency's satisfaction the circumstances giving rise to the Lead Agency's issuance of the relevant Work Takeover Notice, the Lead Agency may at any time thereafter assume the performance of all or any portion(s) of the Work as the Lead Agency

deems necessary ("Work Takeover"). The Lead Agency will notify Respondent in writing (which writing may be electronic) if the Lead Agency determines that implementation of a Work Takeover is warranted under this Paragraph 103.b.

c. Respondent may invoke the procedures set forth in Paragraph 82 (Formal Dispute Resolution) to dispute the Lead Agency's implementation of a Work Takeover under Paragraph 103.b. However, notwithstanding Respondent's invocation of such dispute resolution procedures, and during the pendency of any such dispute, the Lead Agency may in its sole discretion commence and continue a Work Takeover under Paragraph 103.b until the earlier of (1) the date that Respondent remedies, to the Lead Agency's satisfaction, the circumstances giving rise to the Lead Agency's issuance of the relevant Work Takeover Notice, or (2) the date that a written decision terminating such Work Takeover is rendered in accordance with Paragraph 82 (Formal Dispute Resolution).

d. Notwithstanding any other provision of this Settlement Agreement, the Federal Agencies retain all authority and reserves all rights to take any and all response actions authorized by law.

## **XX. COVENANTS BY RESPONDENTS**

104. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Past Response Costs, Future Response Costs, and this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from EPA Hazardous Substance Superfund through Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613; or any other provision of law;

b. any claims under Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law regarding the Work, Past Response Costs, Future Response Costs, and this Settlement Agreement;

c. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Nevada Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law; or

d. any direct or indirect claim for return of unused amounts from the Cordero McDermitt Calcine Site Future Response Costs Special Account, except for unused amounts that the Federal Agencies determine shall be returned to Respondent in accordance with Paragraph 77.f (Unused Amount).

105. Except as provided in Paragraph 108 (Waiver of Claims by Respondent), these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to any of the reservations set forth in Section XIX (Reservations of Rights by the Federal Agencies), other than in Paragraph 102.a (liability for failure to meet a requirement of the Settlement Agreement), 102.d (criminal liability), or 102.e (violations of federal/state law during or after implementation of the Work), but only to the extent that



Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

106. Nothing in this Settlement Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

107. Respondent reserves, and this Settlement Agreement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on the Federal Agencies' selection of response actions, or the oversight or approval of Respondent's deliverables or activities.

108. Waiver of Claims by Respondent.

Respondent agrees not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) and 113 of CERCLA, 42 U.S.C §§ 9607(a) and 9613) that it may have:

a. De Micromis Waiver. For all matters relating to the Site against any person where the person's liability to Respondent with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

b. De Minimis/Ability to Pay Waiver. For response costs relating to the Site against any person that has entered or in the future enters into a final CERCLA Section 122(g) de minimis settlement, 42 U.S.C. § 9622(g), or a final settlement based on limited ability to pay, with the Federal Agencies with respect to the Site.

(1) Exceptions to Waiver. The waiver under this Paragraph 108 shall not apply with respect to any defense, claim, or cause of action that the Respondent may have against any person otherwise covered by such waiver if such person asserts a claim or cause of action relating to the Site against Respondent.

(2) The waiver under Paragraph 108.a (De Micromis Waiver) shall not apply to any claim or cause of action against any person otherwise covered by such waiver if the Federal Agencies determine that: (i) the materials containing hazardous substances contributed to the Site by such person contributed significantly or could contribute significantly, either individually or in the aggregate, to the cost of the response action or natural resource restoration

at the Site; or (ii) such person has failed to comply with any information request or administrative subpoena issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of RCRA, 42 U.S.C. § 6927, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site; or if (iii) such person has been convicted of a criminal violation for the conduct to which the waiver would apply and that conviction has not been vitiated on appeal or otherwise.

## **XXI. OTHER CLAIMS**

109. By issuance of this Settlement Agreement, the United States and the Federal Agencies assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or the Federal Agencies shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

110. Except as expressly provided in Paragraph 108 (Waiver of Claims by Respondent) and Section XVIII (Covenants by the Federal Agencies), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages, and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

111. No action or decision by the Federal Agencies pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

## **XXII. EFFECT OF SETTLEMENT/CONTRIBUTION**

112. Except as provided in Paragraph 108 (Waiver of Claims by Respondent), nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement Agreement. Except as provided in Section XX (Covenants by Respondents), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2), 42 U.S.C. § 9613(f)(2).

113. The Parties agree that this Settlement Agreement constitutes an administrative settlement pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States within the meaning of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and is entitled, as of the Effective Date, to protection from

contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. § 9613(f)(2) and § 9622(h)(4), or as may be otherwise provided by law, for the "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Site, the Work, Past Response Costs, and Future Response Costs.

114. The Parties further agree that this Settlement Agreement constitutes an administrative settlement pursuant to which each Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

115. Respondent shall, with respect to any suit or claim brought by it for matters related to this Settlement Agreement, notify the Federal Agencies in writing no later than sixty (60) days prior to the initiation of such suit or claim. Respondent also shall, with respect to any suit or claim brought against it for matters related to this Settlement Agreement, notify the Federal Agencies in writing within ten (10) days after service of the complaint or claim upon it. In addition, Respondent shall notify the Federal Agencies within ten (10) days after service or receipt of any Motion for Summary Judgment and within ten (10) days after receipt of any order from a court setting a case for trial, for matters related to this Settlement Agreement.

116. In any subsequent administrative or judicial proceeding initiated by the Federal Agencies, or by the United States on behalf of the Federal Agencies, for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by the Federal Agencies set forth in Section XVIII (Covenants by the Federal Agencies).

117. Effective upon signature of this Settlement Agreement by Respondent, Respondent agrees that the time period commencing on the date of its signature and ending on the date the Federal Agencies receive from Respondent the payment(s) required by Paragraph 76 (Payment for Past Response Costs) and, if any, Section XVII (Stipulated Penalties) shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the United States related to the "matters addressed" as defined in Paragraph 113 and that, in any action brought by the United States related to the "matters addressed," Respondent will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If the Federal Agencies give notice to Respondent that it will not make this Settlement Agreement effective, the statute of limitations shall begin to run again commencing ninety (90) days after the date such notice is sent by the Federal Agencies.

### **XXIII. INDEMNIFICATION**

118. The United States does not assume any liability by entering into this Settlement Agreement or by virtue of any designation of Respondent as the Federal Agencies' authorized representatives under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), and 40 C.F.R.

300.400(d)(3). Respondent shall indemnify, save, and hold harmless the United States, its officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, and any persons acting on Respondent's behalf or under its control, in carrying out activities pursuant to this Settlement Agreement. Further, Respondent agrees to pay the United States all costs it incurs, including but not limited to attorneys' fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement. Neither Respondent nor any such contractor shall be considered an agent of the United States.

119. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

120. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

#### **XXIV. INSURANCE**

121. No later than five (5) days before commencing any on-Site Work, Respondent shall secure, and shall maintain until the first anniversary after issuance of Notice of Completion of Work pursuant to Section XXVII (Notice of Completion of Work), commercial general liability insurance with limits of two million dollars (\$2,000,000), for any one occurrence, and automobile insurance with limits of two million dollars (\$2,000,000), combined single limit, naming the Federal Agencies as additional insureds with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Settlement Agreement. In addition, for the duration of the Settlement Agreement, Respondent shall provide the Lead Agency with certificates of such insurance and a copy of each insurance policy. Respondent shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Settlement Agreement. If Respondent demonstrates by evidence satisfactory to the Lead Agency that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering

some or all of the same risks but in a lesser amount, Respondent need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor.

## **XXV. MODIFICATION**

122. The Lead Agency OSC may modify any plan or schedule that implements the approved Removal Action Work Plan in writing or by oral direction. Any oral modification will be memorialized in writing by the Lead Agency promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the Parties.

123. If Respondent seeks permission to deviate from any approved work plan, schedule, or the Removal Action Work Plan, Respondent's Project Coordinator shall submit a written request to the Lead Agency OSC for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 122.

124. No informal advice, guidance, suggestion, or comment by the OSC or other representatives of the Federal Agencies regarding any deliverable submitted by Respondent shall relieve Respondent of their obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

## **XXVI. ADDITIONAL REMOVAL ACTION**

125. If the Federal Agencies determine that additional removal actions not included in the Removal Action Work Plan or other approved plan(s) are necessary to protect public health, welfare, or the environment, and such additional removal actions are consistent with the Action Memorandum and the Removal Action Work Plan, the Federal Agencies will notify Respondent of that determination. Unless otherwise stated by the Federal Agencies, within thirty (30) days after receipt of notice from the Federal Agencies that additional removal actions are necessary to protect public health, welfare, or the environment, Respondent shall submit for approval by the Federal Agencies a work plan for the additional removal actions. The plan shall conform to the applicable requirements of Section VIII (Work to Be Performed) of this Settlement Agreement. Upon the Federal Agencies' approval of the plan pursuant to Paragraph 45 (Removal Action Work Plan and Implementation), Respondent shall implement the plan for additional removal actions in accordance with the provisions and schedule contained therein. This Section does not alter or diminish the OSC's authority to make oral modifications to any plan or schedule pursuant to Section XXV (Modification).

## **XXVII. NOTICE OF COMPLETION OF WORK**

126. When the Federal Agencies determine, after the Federal Agencies' review of the Final Report, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, but not limited to, Post-Removal Site Controls, land, water, or other resource use restrictions, payment of Future Response Costs, or record retention, the Federal Agencies will provide written notice to Respondent. If the Federal Agencies determine that such

Work has not been completed in accordance with this Settlement Agreement, the Federal Agencies will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Removal Action Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Removal Action Work Plan and shall submit a modified Final Report in accordance with the Federal Agencies' notice. Failure by Respondent to implement the approved modified Removal Action Work Plan shall be a violation of this Settlement Agreement.

#### **XXVIII. PUBLIC COMMENT**

127. Final acceptance by the Federal Agencies of the Past Response Costs included in this Settlement Agreement shall be subject to Section 122(i) of CERCLA, 42 U.S.C. § 9622(i), which requires the Federal Agencies to publish notice of the proposed settlement in the Federal Register, to provide persons who are not parties to the proposed settlement an opportunity to comment, solely, on the cost recovery component of the settlement, and to consider comments filed in determining whether to consent to the proposed settlement. The Federal Agencies may withhold consent from, or seek to modify, all or part of Section XIV (Payment of Response Costs) of this Settlement Agreement if comments received disclose facts or considerations that indicate that Section XIV of this Settlement Agreement is inappropriate, improper, or inadequate. Otherwise, Section XIV shall become effective when the Federal Agencies issue notice to Respondent that public comments received, if any, do not require the Federal Agencies to modify or withdraw from Section XIV of this Settlement Agreement.

#### **XXIX. TERMINATION OF ORDER**

128. Upon execution of this Settlement Agreement, EPA Unilateral Administrative Order for performance of a removal action, U.S. EPA Docket No. 9-2012-10, signed October 16, 2012 is terminated as to Respondent Barrick Gold U.S., Inc.

#### **XXX. ATTORNEY GENERAL APPROVAL**

129. The Attorney General or his designee has approved the response cost settlement embodied in this Settlement Agreement in accordance with Section 122(h)(1) of CERCLA, 42 U.S.C. § 9622(h)(1).

#### **XXXI. INTEGRATION/APPENDICES**

130. This Settlement Agreement and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

- a. Appendix A is the 2017 Action Memorandum.
- b. Appendix B is the Health and Safety Plan.

- c. Appendix C is the Inspection and Maintenance Plan.
- d. Appendix D is the Environmental Covenant.
- e. Appendix E is the Removal Action Work Plan.
- f. Appendix F is the 2012 Action Memorandum.
- g. Appendix G is the 2013 Action Memorandum.

**XXXII. EFFECTIVE DATE**


131. This Settlement Agreement shall be effective the Day upon which the Settlement Agreement has been fully executed by all Parties with the exception of the Past Response Cost compromise included in this Settlement Agreement, which shall be effective when the Federal Agencies issue notice to Respondent that public comments received, if any, do not require the Federal Agencies to modify or withdraw from Paragraph 76 of the Past Response Cost compromise included within this Settlement Agreement.

IT IS SO AGREED AND ORDERED:

Cordero-McDermitt Calcine Pile Site  
Administrative Settlement Agreement and  
Order on Consent for Removal Action

**U.S. ENVIRONMENTAL PROTECTION AGENCY:**

21 July 2017  
Date

  
\_\_\_\_\_  
Daniel Meer, Assistant Director  
Emergency Response, Preparedness & Prevention Branch  
Superfund Division  
EPA Region 9



Cordero-McDermitt Calcine Pile Site  
Administrative Settlement Agreement and  
Order on Consent for Removal Action

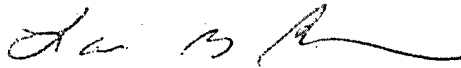
**U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

8/2/2017 Date for Mark J. Jodda, acting  
John F. Ruhs, State Director  
Bureau of Land Management  
Nevada State Office

Cordero-McDermitt Calcine Pile Site  
Administrative Settlement Agreement and  
Order on Consent for Removal Action

U.S. DEPARTMENT OF THE INTERIOR  
OFFICE OF THE SOLICITOR


8/28/17  
Date

  
Laura B. Brown  
Associate Solicitor, Division of Land Resources

Cordero-McDermitt Calcine Pile Site  
Administrative Settlement Agreement and  
Order on Consent for Removal Action

FOR BARRICK GOLD U.S., Inc.  
[Print Name of Respondent]

JUNE 30, 2017  
Date

  
[Name]  
[Title]

**Peter Webster**  
Director



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
Humboldt River Field Office  
5100 East Winnemucca Boulevard  
Winnemucca, Nevada 89445  
Phone: (775) 623-1500 Fax: (775) 623-1503  
Email: [wfoweb@blm.gov](mailto:wfoweb@blm.gov)  
[www.blm.gov/nv/st/en/fo/wfo.html](http://www.blm.gov/nv/st/en/fo/wfo.html)

## ACTION MEMORANDUM

## **MEMORANDUM**

**DATE:** 08 June 2017

**FROM:** Kurt D. Miers,  
BLM Environmental Protection Specialist

**TO:** David Kampwerth, *DK*,  
Humboldt River Field Manager

**THROUGH:** Steve Sappington,  
Assistant Field Manager

**SUBJECT:** Request for Time-Critical Removal Action at Cordero-McDermitt Calcine Pile Site

### **I. PURPOSE**

The purpose of this memorandum is to recommend, document the basis for taking, and select a time-critical removal action (TCRA) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C §§ 9601 *et seq.*, addressing the release or threat of release of hazardous substances at or from the Cordero-McDermitt Calcine Pile Site (Site) in Humboldt County, Nevada. A portion of the Site is on land owned by Barrick Gold U.S., Inc. and on land under the jurisdiction, custody or control of the the Bureau of Land Management (BLM), an agency of the U.S. Department of the Interior (Interior).

The Site consists of an 11-acre calcine pile resulting from mining operations from nearby mercury mines. Sampling results document the release of arsenic and mercury in surface soils at the Site, in concentrations posing a threat to public health or welfare or the environment.

This TCRA is authorized pursuant to the response action authority of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). Pursuant to Executive Order 12580, as amended, this authority was delegated to the U.S. Environmental Protection Agency (EPA) and the Secretary of the Interior. This authority was further delegated to the Superfund Assistant Directors for EPA and to the State Directors for BLM.

### **II. SITE CONDITIONS AND BACKGROUND**

#### **A. Site description**

##### **1. Physical Location and Site Characteristics**

The calcine pile sits on an 11-acre site located 5 miles southwest of the town of McDermitt, Humboldt County, Nevada. A portion of the calcine pile is on land managed by the BLM and on land owned by Barrick Gold U.S., Inc. The calcine pile is associated with past mining operations at the Cordero Mine, an inactive mercury mine located at the end of Cordero Mine Road,

approximately 11 miles west-southwest of the town of McDermitt, NV. During the period from 1933 to 1989, the Cordero and McDermitt Mines were two of the four largest producers of mercury in North America. The Cordero Mine is located partially on land managed by BLM and partially on patented claims owned by Barrick Gold U.S., Inc. Cordero Mine was operated from 1933 to 1970 by various mining operators, including, but not limited to, Bradley Mining Company, Horse Heaven Mines, Inc. or Horse Heaven Mining Company, Cordero Mining Company, and Fred H. Lenway and Company or Fred H. Lenway & Company, Inc. Current site features include the calcine pile, remains of a processing facility, open shafts, head frames, two buildings, open pits and excavation areas. In December 2011, January 2012, and May 2012, BLM took action to mitigate physical hazards at the Cordero Mine, including fencing and backfilling certain areas, conducting cultural and biological surveys, and installing 10 bat compatible closures.

The McDermitt Mine is located on privately-owned land adjacent to, and directly north of, the Cordero Mine. The McDermitt Mine was operated from approximately 1970 to 1990 by various mining operators, including, but not limited to, Placer Amex, Inc. and employed a process that did not generate calcine tailings. Current site features include the calcine pile, 135-acre open pit, waste rock dumps and tailings ponds.

Calcine is the waste material from crushed mine ore that has been roasted to remove the mercury. In 2009, EPA discovered that materials from the calcine pile had been used as a source of fill by local residents, contractors, and municipal organizations. As a result, material from the calcine pile came to be located at various locations within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Reservation. In 2010, EPA initiated a removal preliminary assessment at the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Reservation and identified elevated levels of mercury and arsenic at various locations within the town of McDermitt, NV, including the McDermitt Combined School and numerous residences and roadways, and at least two locations on the Fort McDermitt Paiute Shoshone Reservation (unpaved road and unpaved residential driveway). In April and May 2013, EPA conducted a TCRA under CERCLA to address the calcine tailings discovered in and around the town of McDermitt and the Fort McDermitt Indian Reservation. EPA's 2013 TCRA included the excavation of the calcine material from locations within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. In an Action Memorandum signed April 19, 2013, BLM authorized EPA to temporarily consolidate the excavated calcine material on the portion of the calcine pile located on public lands managed by BLM.

## **2. Release or Threatened Release into the Environment of a Hazardous Substance, Pollutant or Contaminant**

As a part of EPA's removal assessment activities associated with its 2013 TCRA, EPA collected soil and calcine samples at various locations in and around the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation, to evaluate the bioavailability of mercury and arsenic. EPA used the data to calculate a site-specific residential soil removal action level for mercury (80 parts per million (ppm)) and for arsenic (60 ppm). EPA did not calculate site-specific removal action levels for non-residential soil, and instead relied on EPA Region IX Regional Screening Levels (310 ppm for mercury and 160 ppm for arsenic).

In addition, EPA conducted residential soil sampling of properties where EPA believed, based on visual inspection, that materials from the calcine pile may have been used as fill. A total of 92 composite residential soil samples were collected and subjected to XRF analysis. Of the 92 composite samples subjected to XRF analysis, 55 samples exceeded the soil screening level for arsenic and/or mercury. EPA submitted the 55 samples to the laboratory for analysis. Of the 55 laboratory-analyzed soil samples, 20 samples (16 parcels of property) had arsenic concentrations that met or exceeded the residential action level and 42 samples (23 parcels of property) had mercury concentrations that met or exceeded the residential action level.

While performing the removal preliminary assessment, EPA conducted informal interviews with residents and determined that the calcine material present in the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation was obtained from the calcine pile at the Cordero Mine and McDermitt Mine. EPA concluded that local contractors, residents and municipal organizations obtained material from the calcine pile for use as fill at multiple locations.

## **2. National Priorities List (NPL) Status**

The Site is not currently on the NPL and NPL listing is not considered likely.

## **3. Maps and Pictures**

Appendix A contains maps and photographs of the calcine pile.

### **B. Other Actions Taken to Date**

In December 2011, January 2012 and May 2012, BLM took action to mitigate physical hazards at the Cordero Mine, including fencing and backfilling certain areas, conducting cultural and biological surveys, and installing 10 bat compatible closures. In April and May 2013, EPA conducted a TCRA under CERCLA at the Site to address the calcine tailings discovered in and around the town of McDermitt and the Fort McDermitt Indian Reservation. EPA's 2013 TCRA included the excavation of the calcine material from 56 residential locations, portions of the McDermitt School property and four unpaved roadways within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. In an Action Memorandum signed April 19, 2013, BLM authorized EPA to temporarily consolidate the excavated calcine material on the portion of the calcine pile located on public lands managed by BLM.

#### **1. No other actions have been taken to date to address the release or threatened release of hazardous substances at or from the Site**

In 2016, BLM conducted a Class III Cultural Resource Inventory for the Site. BLM also completed the appropriate level of consultation was completed with the National Historic Preservation Act (NHRP). The NHRP findings do not list any properties within the Site area.

The BLM Wildlife Biologist was consulted to identify any concerns regarding the Site.

The Site is in general sage grouse habitat. The benefits of this action outweighs the limited impact it could have on the habitat by addressing the release or threatened release of hazardous substances at or from the Site. The final recommendation from the BLM Wildlife Biologist was that there were no issues regarding wildlife, but also recommended the TCRA be initiated after June 30, 2017 if possible.

### **C. State and Local Authorities' Roles**

BLM and EPA have coordinated with each other and with the Nevada Department of Environmental Protection as it has developed this TCRA and associated deliverables.

## **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

Pursuant to Section 104 of CERCLA and consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, Interior is authorized to respond to the release or substantial threat of release of hazardous substances on or from property under Interior's jurisdiction, custody, or control. Pursuant to Section 300.415(b)(2) of the NCP, where Interior determines that there is a threat to public health or welfare or the environment, Interior may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release. The following sections evaluate, based on the factors outlined in Section 300.415(b) (2) of the NCP, threats to public health or welfare or the environment posed by the release and threatened release of hazardous substances at the Site.

### **A. Actual or potential exposure to nearby populations, animals or the food chain from hazardous substances or pollutants or contaminants**

Sampling results from EPA's removal assessment documented elevated levels of mercury and arsenic in surface soils at multiple locations in the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. The elevated levels of mercury and arsenic are a result of the calcine material taken from the calcine pile. A release or threat of release of mercury and arsenic at the Site have or may result in actual or potential exposure of nearby populations of hazardous substances. Implementation of BLM's TCRA will minimize or eliminate the actual or potential exposure of nearby populations by containing the contaminated soil with a cap.

### **B. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate; and weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released**

The Site is located in an area of Nevada that is characterized by extremely variable winds with high velocities throughout much of the year. Sampling results from EPA's removal assessment documented elevated levels of mercury and arsenic in surface soils at multiple locations in the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. The elevated levels of mercury and arsenic are a result of the calcine material



taken from the calcine pile at the Cordero Mine and McDermitt Mine. Migration of contaminated surface soil could occur, primarily through aerial transport resulting from high winds. Implementation of BLM's TCRA will minimize or eliminate the potential migration or release or threat of release of hazardous substances in surface soils, due to weather conditions or otherwise.

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present a release or substantial threat of release of hazardous substances into the environment that are appropriate for response actions as authorized by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a) or constitute an imminent and substantial endangerment to the public health or welfare or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). This TCRA is necessary to remove hazardous substances from the Site where exposure to nearby populations is likely in order to abate, prevent, mitigate or eliminate the threat posed by the release or substantial threat of release of these substances.

#### **V. PROPOSED ACTIONS ESTIMATED COSTS**

##### **A. Proposed actions**

###### **1. Proposed action description**

The TCRA approved in this Action Memorandum will consist of capping the calcine with twenty-four inches of compacted material that will be used from a borrow source on-Site and re-establishing fencing around the pile. All work will be completed using relevant standards and follow the Removal Action Work Plan (RAWP), as approved by BLM. The approved RAWP will include an On-Site Health and Safety Plan, description of work and objective for the completion of work.

###### **2. Contribution to remedial performance**

BLM anticipates implementation of its TCRA to be a final remedy for the calcine pile. In coordination with EPA, BLM will determine what additional action, if any, is required at the Cordero Mine Site.

###### **3. Project schedule**

This TCRA is anticipated to start after approval of this Action Memorandum, but no earlier than June 30, 2017, given the Site is located in sage grouse habitat. It is estimated that the total time needed to complete the TCRA is approximately 3 months.

##### **B. Estimated Costs**

The actions authorized by this Action Memorandum will be undertaken and funded by Barrick Gold U.S., Inc.

#### **VI.EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

In the event response action is delayed or not taken, hazardous substances will continue to be released, or there is a threat of such release, at the Site, continuing to pose an exposure risk to human health or the environment.

#### **VII.OUTSTANDING POLICY ISSUES**

None.

#### **VIII.ENFORCEMENT**

BLM has identified potentially responsible parties at the Site. In coordination with EPA, BLM pursuant to Section 107 of CERCLA, BLM is pursuing enforcement and cost recovery efforts against the potentially responsible parties.

#### **IX.RECOMMENDATION**

This memorandum identifies and recommends a removal action for the Site. This document was developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This recommendation is based on the record for the Site and endangerment determination contained herein. The proposed BLM TCRA meets the objectives identified in this Action Memorandum to reduce risks to human health or welfare or the environment at the Site. Because conditions at the Site meet the NCP criteria for undertaking the proposed TCRA, I recommend that you approve the proposed TCRA.

**ON-SITE  
HEALTH AND SAFETY PLAN**

**Cordero Calcine Pile Cover  
McDermitt Mine  
Humboldt County, Nevada**

Proposed Date of Field Activities: 2017  
Project Coordinator: Clark Burton  
Project Assistant Project Coordinator: Kevin Hamatake

Prepared For:

Barrick Gold Corporation  
450 West 50 North Suite 500  
Salt Lake City, Utah 84101

June 28, 2017

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### Acronyms/Abbreviations

BLM	Bureau of Land Management
BTEX	Benzene, toluene, ethyl benzene and xylene
CFR	Code of Federal Regulations
CO	carbon monoxide
CPR	cardiopulmonary necessitation
CRZ	contamination reduction zone
EPA	Environmental Protection Agency
dBA	decibels made on A weighted network of a sound meter
FID	flame ionizing detector
HAZWOPER	Hazardous Waste Operations and Emergency Response
mg/m <sup>3</sup>	milligram per cubic meter
mR/hr	milli-Rems-per-hour
meV	milliequivalency volt
NIOSH	National Institute for Occupational Safety and Health
NRC	National Research Council
OSHA	Occupational Safety and Health Administration
PEL	permissible exposure level
PID	photo ionization detector
PPE	personal protective equipment
HASP	health and safety plan
SOP	standard operating procedure
SSO	Site Safety Officer
TLV	threshold limit value
TWA	time weighted average

## 1. INTRODUCTION

### 1.1 POLICY

Barrick Gold Corporation's ("**Barrick**") Safety and Health Policy outlines the company's commitment to a zero-incident work environment. It reflects the Barrick safety vision, which is "Every person going home safe and healthy every day." This on-site Health and Safety Plan ("**HASP**") establishes the procedures and requirements to ensure the health and safety of Barrick employees, contractors, and subcontractors ("**Personnel**") for the above-named project. The objectives of the HASP are to establish a workplace that is injury-free and incident-free, to provide optimum productivity, and to meet or exceed compliance of standards and regulations established by the Occupational Safety and Health Act ("**OSHA**").

After reading this plan, Personnel shall read and sign the accompanying Health and Safety Plan Acceptance form. Contractors and Subcontractors are also responsible for developing, providing, and enforcing their own health and safety plans consistent to this plan to address additional or different risks associated with their contracted work.

This HASP has been prepared to meet the following applicable regulatory requirements and guidance:

Applicable Regulation/Guidance
29 CFR 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER)

### 1.2 SCOPE OF WORK

**Description of Work:** Barrick has agreed to conduct mine waste remediation at the McDermitt Mine and the Affected Property (defined below) pursuant to a an Administrative Settlement Agreement and Order on Consent for Removal Action (the "**AOC**") among Barrick, the U.S. Environmental Protection Agency ("**EPA**"), and the Bureau of Land Management ("**BLM**") and a Removal Action Work Plan ("**Work Plan**"). The scope of work (the "**Work**") is described in detail in the Work Plan and includes the following tasks:

1. Pre-mobilization activities;
2. Mobilization and site preparation;
3. Fence removal;
4. Calcine pile preparation;
5. Cover placement;
6. Fence re-installation; and
7. Demobilization

The HASP has been submitted to BLM, the Lead Agency under the AOC, for review and approval and will be an attachment to the AOC.

**Equipment/Supplies:** Barrick's contractor will provide all equipment and supplies necessary to complete the Work.

### 1.3 SITE DESCRIPTION

#### **Affected Property History and Description:**

The “**Affected Property**,” where the Work will take place, consists of the Cordero Mine calcine mercury tailings pile located on patented claims owned by Barrick Gold U.S., Inc. that also may have comprised part of the former McDermitt Mine site, and on Federal land managed by the BLM. The Affected Property is generally located within the NE 1/4 of Section 33, T47N, R37E, Mt. Diablo Meridian, Humboldt County, Nevada, approximately 11 miles southwest of the town of McDermitt, Nevada, as depicted in Exhibit A.

The Affected Property and the McDermitt Mine are surrounded by the McDermitt Caldera, which was a nationally significant resource for mercury production. During the period from 1933 to 1989, four mines located within the McDermitt Caldera – Bretz Mine, Opalite Mine, Cordero Mine, and McDermitt Mine – were the largest producers of mercury in North America. As a result of historical mercury mining practices in the McDermitt Caldera, calcine mine waste from the Cordero and McDermitt mines have been transported to McDermitt and Fort McDermitt and used as fill material throughout the community. Information received by EPA indicates that calcine mine waste may have also been obtained from the Bretz and Opalite mines located in southern Oregon.

Assessments conducted by EPA between September 2010 and September 2012, suggest that some of the calcine waste transported to McDermitt and Fort McDermitt may have come from the McDermitt Mine and other mine sites. In 2013, EPA Region IX carried out removal activities to address the calcine tailings discovered in and around the town of McDermitt and the Fort McDermitt Indian Reservation. These removal activities included excavation and transport of approximately 10,000 tons of calcine material from the town of McDermitt and the Fort McDermitt Indian Reservation to the Cordero calcine tailings pile at the Affected Property.

EPA and BLM have determined that the Cordero calcine tailings pile must be graded, contoured, capped and fenced to prevent future human and ecological exposure to mercury and arsenic contained in the calcine tailings.

**Locations of Contaminants/Wastes:** Arsenic and mercury were detected in the Cordero calcine tailings pile.

**Types and Characteristics of Contaminants/Wastes:** The wastes present at the site have the following characteristics: solid; carcinogenic; acutely toxic. There is no concern for radiation at this site.



## 2. ORGANIZATION AND RESPONSIBILITIES

The project team, including qualified alternates, is identified below.

Name	Role/Responsibility
Clark Burton	Project Coordinator
Kevin Hamatake	Assistant Project Coordinator
TBD	Contractor Project Manager
TBD	Contractor Site Superintendent
TBD	Contractor Site Safety Officer ("SSO")

## 3. TRAINING

Prior to work, all Personnel assigned to this project will be trained in the provisions of this HASP. All Personnel are required to sign the daily Safety Meeting record and attend a site specific safety orientation where the following topics will be covered:

- a. Key personnel and their responsibilities for the site;
- b. Communication procedures;
- c. Identification of CPR and first aid trained Personnel;
- d. Incident reporting procedures;
- e. Specific site hazards;
- f. Work zones and site control measures;
- g. Personal protective equipment/required levels of protection;
- h. Decontamination procedures (equipment and Personnel);
- i. Location of safety equipment such as fire extinguishers and first aid kits;
- j. Standard operating procedures and safe work practices;
- k. Safe zone distances around heavy equipment and articulating booms;
- l. Traffic routes, parking areas, speed limits and right-of-ways;
- m. Emergency and spill response and contingency plans.

In addition to site specific orientation, all Personnel assigned to this project will complete the following training requirements.

Training
40-Hour OSHA HAZWOPER Initial Training and Annual Refresher (29 CFR 1910.120)
A minimum of two project Personnel will be trained in First Aid/CPR

Training
Hazard Communication (29 CFR 1910.1200)

## 4. MEDICAL SURVEILLANCE

### 4.1 MEDICAL SURVEILLANCE PROGRAM

Personnel working on this project are required to participate in a medical surveillance program, which includes physical examinations prior to the start of field work, at least once per calendar year, and at the termination of employment. Additional examinations may be required if a worker is exposed to harmful chemicals, or if deemed necessary by a physician, in accordance with 29 CFR 1910.120(f)(3).

## 5. SITE CONTROL

### 5.1 SITE LAYOUT AND WORK ZONES

**Site Work Zones:** To be determined during the initial safety meeting before work begins.

#### 5.1.1 WORK ZONES AND SUPPORT AREAS

To prevent migration of contamination caused by tracking by Personnel or their equipment, work areas and personal protective equipment ("PPE") will be clearly specified prior to beginning operations. Personnel shall obey all designated work areas or zones as implemented by the SSO.

Upon entrance into the Affected Property, Personnel will control access to site work zones. Each work area will be designated into one of three zones: exclusion, a contamination reduction zone ("CRZ"), and a support zone. Personnel will be working in all three zones during the duration of this project

##### 5.1.1.1 Exclusion Zone

The exclusion zone is considered the zone of contamination and is the area where inhalation, oral contact, or dermal contact with contaminants must be avoided.

##### 5.1.1.2 Contamination Reduction Zone

The CRZ or "transition zone" will be established between the exclusion zone and support zone. In this area, Personnel will perform decontamination of themselves and equipment prior to leaving the CRZ.

##### 5.1.1.3 Support Zone

The support zone will consist of a clearly marked area where the support equipment and Personnel not donned in the appropriate level of PPE will be located. Smoking, drinking, and eating will be allowed only in designated areas in the support zone. The location of support zone may be changed in the event of a sustained change in the prevailing wind direction or other unpredictable events.

#### **5.1.1.4 Access Controls**

The Superintendent/SSO or their designee shall establish the physical boundaries of each zone daily and shall instruct Personnel and visitors on the limits of the restricted areas. No one shall be allowed to enter the restricted area without the required PPE for that area. The Superintendent/SSO shall ensure compliance with all restricted area entry and exit procedures.

#### **5.1.1.5 Visitor Access**

Visitors must check in immediately upon arrival with the Superintendent/SSO or their designee. Only authorized visitors will be allowed access to the jobsites and will be required to wear the appropriate level of PPE. Affected Property visitors will not be admitted to the exclusion and contamination reduction zones.

A visitors log will be kept by the Superintendent/SSO or their designee.

### **5.1.2 SITE ACCESS REQUIREMENTS**

The Affected Property may be accessed via State Hwy 793 from US-95. The Affected Property consists of property under the control of Barrick and property managed by BLM. BLM has granted permission to Barrick to conduct the Work.

### **5.1.3 ILLUMINATION REQUIREMENTS**

Work will be conducted in daylight hours unless prior approval is obtained and the illumination requirements in 29 CFR 1910.120(m) are satisfied.

### **5.1.4 SANITARY FACILITIES**

Sanitary facilities (e.g., toilet, shower, potable water) will be arranged on site. Bottled water and/or electrolyte beverages will be available.

### **5.1.5 ON-SITE COMMUNICATIONS**

Cell phone/radio, verbal and signals will be communicated in the site orientation.

## **5.2 SAFE WORK PRACTICES**

### **5.2.1 DAILY SAFETY MEETING**

A daily safety meeting will be conducted for all Personnel and appropriately documented in the field logbook. The information and data obtained from applicable site characterization and analysis will be addressed in the safety meetings and also used to update this HASP, as necessary.

### **5.2.2 WORK SCHEDULE**

Work shall be limited to a maximum of 12 hours per day. If 7 consecutive days are worked, at least one day off shall be provided before work is resumed. Work will be conducted in daylight hours unless prior approval is obtained and the illumination requirements in 29 CFR 1910.120(m) are satisfied.

### **5.2.3 HEADPHONES**

Personnel shall not wear headphones or any other device that could impair hearing heavy equipment alarms or other warnings.

### **5.2.4 LINE OF SIGHT**

Each field team member shall remain in the line of sight and/or within verbal communication of at least one other team member.

### **5.2.5 EATING, DRINKING, AND SMOKING**

Eating, drinking, smoking, and the use of tobacco products shall be prohibited in the exclusion and contamination reduction areas, and shall only be permitted in designated areas.

### **5.2.6 CONTAMINATION AVOIDANCE**

Field Personnel shall avoid unnecessary contamination of Personnel, equipment, and materials to the extent practicable.

### **5.2.7 SAFETY AROUND HEAVY EQUIPMENT**

Where heavy equipment is on the Affected Property, Personnel shall use extra caution and shall be alert to the possibility of injury due to vehicles sliding or reversing.

## **6. HAZARD EVALUATION AND CONTROL**

This section addresses the potential hazards identified with of the project site(s), which includes but is not limited to chemical, biological, physical, and environmental hazards. Hazard characterization and selection of worker protection methods for this project have been determined from previous projects of a similar nature.

### **6.1 PHYSICAL HAZARD EVALUATION AND CONTROL**

Potential physical hazards and their applicable control measures are described in the following table for each task.

<b>Hazard</b>	<b>Control Measures</b>
Disease Vectors (Mosquitos, ticks, rodents, etc	<ul style="list-style-type: none"><li>▪ Wear long-sleeved shirts and pants.</li><li>▪ Do not stir up soil contaminated with rodent urine or droppings as the hanta virus may become airborne.</li><li>▪ Wear insect repellent.</li><li>▪ Check for ticks often</li><li>▪ Do not touch live or dead animals.</li><li>▪ Do not put gear down in possible rodent habitat.</li><li>▪ Dampen area before clean-up activities.</li><li>▪ Avoid activities at dawn and dusk.</li></ul>

Hazard	Control Measures
Thermal Stress	<ul style="list-style-type: none"> <li>■ <b>Heat Stress (may be seasonal and/or time of day dependent)</b> <ul style="list-style-type: none"> <li>▪ Drink a quart of water per hour.</li> <li>▪ Take cooling rest breaks in the shade.</li> <li>▪ Avoid physical activity during the hottest part of the day if possible.</li> <li>▪ Wear cool and breathable clothing.</li> <li>▪ Apply sunscreen.</li> <li>▪ Wear a hat, sun visor, or some form of personal shade protection.</li> </ul> </li> <li>■ <b>Cold Stress (may be seasonal and/or time of day dependent).</b> <ul style="list-style-type: none"> <li>▪ Ensure clothing and boots have adequate insulation.</li> <li>▪ Avoid working alone.</li> <li>▪ Getting wet from rain or sweat can worsen heat loss in cold weather.</li> <li>▪ Wear rain protective clothing and rubber boots in rain and cold weather.</li> <li>▪ If wet, change into dry clothing when possible.</li> <li>▪ Promote cold stress awareness.</li> </ul> </li> </ul>
Compressed Gas Cylinders	<ul style="list-style-type: none"> <li>▪ Use caution when moving or storing cylinders.</li> <li>▪ A cylinder is a projectile hazard if it is damaged or its neck is broken.</li> <li>▪ Store cylinders upright and secure them by chains or other means.</li> </ul>
Confined Space	<ul style="list-style-type: none"> <li>▪ Ensure compliance with 29 CFR § 1910.146.</li> </ul>
Drums and Containers	<ul style="list-style-type: none"> <li>▪ Ensure compliance with 29 CFR § 1910.120(j).</li> <li>▪ Consider unlabeled drums or containers to contain hazardous substances and handle accordingly until the contents are identified.</li> <li>▪ Inspect drums or containers and assure integrity prior to handling.</li> <li>▪ Move drums or containers only as necessary; use caution and warn nearby Personnel of potential hazards.</li> </ul>
Electrical	<ul style="list-style-type: none"> <li>▪ Ensure compliance with 29 CFR Part 1910 Subparts J and S.</li> <li>▪ Locate and mark energized lines.</li> <li>▪ De-energize lines as necessary.</li> <li>▪ Ground all electrical circuits.</li> <li>▪ Guard or isolate temporary wiring to prevent accidental contact.</li> <li>▪ Evaluate potential areas of high moisture or standing water and define special electrical needs.</li> </ul>
Excavation and Trenching	<ul style="list-style-type: none"> <li>▪ Ensure that excavations comply with and Personnel are informed of the requirements of 29 CFR 1926 Subpart P.</li> <li>▪ Ensure that any required sloping or shoring systems are approved as per 29 CFR 1926 Subpart P.</li> <li>▪ Maintain line of sight between equipment operators and other Personnel in excavations/trenches. Such Personnel are prohibited</li> </ul>

Hazard	Control Measures
	<p>from working in close proximity to operating machinery.</p> <ul style="list-style-type: none"> <li>Suspend or shut down operations at signs of cave in, excessive water, defective shoring, changing weather, or unacceptable monitoring results.</li> </ul>
Fire and Explosion	<ul style="list-style-type: none"> <li>Inform Personnel of the location(s) of potential fire/explosion hazards.</li> <li>Ensure that appropriate fire suppression equipment and systems are available and in good working order.</li> <li>Avoid parking vehicles on tall, dry vegetation.</li> </ul>
Vehicles/Heavy Equipment	<ul style="list-style-type: none"> <li>Define equipment routes, traffic patterns, and site-specific safety measures.</li> <li>Ensure that operators are properly trained and equipment has been properly inspected and maintained. Verify back-up alarms.</li> <li>Ensure that ground spotters are assigned and informed of proper hand signals and communication protocols.</li> <li>Ensure that field Personnel do not work in close proximity to operating equipment.</li> <li>Ensure that lifting capacities, load limits, etc., are not exceeded.</li> <li>Other: Wear hard hat, safety vest, and hearing protection when working around heavy equipment. Ensure that operator is aware of your location and be alert at all times.</li> </ul>
Heights (Scaffolding, Ladders, etc.)	<ul style="list-style-type: none"> <li>Ensure compliance with applicable subparts of 29 CFR Part 1910.</li> <li>Identify special PPE needs (e.g., harness, lanyards, safety nets, etc.).</li> </ul>
Noise	<ul style="list-style-type: none"> <li>Increase distance from the noise source when possible.</li> </ul> <p>Minimum PPE required when noise exceeds 85 dBA (8-hour TWA):</p> <ul style="list-style-type: none"> <li>Earplugs or ear muffs.</li> </ul>
Overhead Obstructions	<ul style="list-style-type: none"> <li>Do not walk or work under suspended loads.</li> <li>Wear hard hat.</li> </ul>
Power Tools	<ul style="list-style-type: none"> <li>Ensure compliance with 29 CFR 1910 Subpart P.</li> </ul>
Sunburn	<ul style="list-style-type: none"> <li>Apply sunscreen.</li> <li>Wear hats/caps and long sleeves.</li> </ul>
Utility Lines	<ul style="list-style-type: none"> <li>Identify/locate existing utilities prior to work.</li> <li>Ensure that overhead utility lines are at least 25 feet away from project activities.</li> <li>Contact utilities to confirm locations, as necessary.</li> </ul>
Weather Extremes (High Winds, Poor Visibility, Etc.)	<ul style="list-style-type: none"> <li>Weatherize safety gear, as necessary (e.g., ensure eye wash units cannot freeze, etc.).</li> <li>Discontinue work during severe weather and conduct risk</li> </ul>

Hazard	Control Measures
	assessment prior to resuming work.
Other: Lifting; slip, trip, and fall; punctures	<ul style="list-style-type: none"> <li>▪ Practice safe lifting procedures e.g., bend knees, buddy lift, etc.</li> <li>▪ Wear safety boots; assess work areas for slippery areas, holes/uneven surfaces, sharp objects, etc.</li> <li>▪ Maintain a clean work place free of debris and trip hazards.</li> </ul>

## 6.2 CHEMICAL HAZARD EVALUATION AND CONTROL

### 6.2.1 Chemical Hazard of Concern

The chemical hazards that present the greatest concern as airborne and/or topical contaminants in the soils are discussed below and summarized in Table 6-1. The information that follows provides a discussion of the hazards that are known at the Affected Property and includes the various exposure limits, which are the regulatory exposure limits for workplace safety. All permissible exposure limits (“PELs”) listed are time-weighted average (“TWA”) exposure concentrations.

**Table 6-1**  
**CHEMICAL HAZARD EVALUATION**

Concentration (ppm) TLV	Dermal Hazard (Y/N)	Route(s) of Exposure	Acute Symptoms	Odor Threshold/ Description
0.01	Y	Inhalation, skin absorption, skin and/or eye contact, ingestion	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, [potential occupational carcinogen]	Metal: Silver-gray or tin-white, brittle, odorless solid
0.025	Y	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria	Metal: Silver-white, heavy, odorless liquid

National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards available at <http://www.cdc.gov/niosh/pocketguide/>.

Director

Permissible limit  
Exposure limit  
Range



## **Arsenic**

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds. Inorganic arsenic compounds are mainly used to preserve wood. Organic arsenic compounds are used as pesticides, primarily on cotton plants.

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs. Ingesting high levels of inorganic arsenic can result in death. Lower levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet. Skin contact with inorganic arsenic may cause redness and swelling. Several studies have shown that inorganic arsenic can increase the risk of lung cancer, skin cancer, bladder cancer, liver cancer, kidney cancer, and prostate cancer. The World Health Organization (WHO), the Department of Health and Human Services (DHHS), and the EPA have determined that inorganic arsenic is a human carcinogen.

## **Mercury**

Mercury is a naturally occurring element found in rocks, soil, water, air and living things. Mercury is the only metal that is liquid at room temperature. In its pure form (often called metallic or elemental), mercury is a shiny, silver-white, odorless liquid. If heated, mercury vaporizes into a toxic colorless gas that is odorless to people.

The potential routes of exposure to mercury during this project are the inhalation of airborne dusts containing mercury particulates and contact with mercury-impacted material. Mercury can damage the central nervous system, kidneys and liver. Both high level/short-term and low level/long-term exposures can lead to serious health problems. High level, short-term exposure can cause skin rashes, diarrhea, and respiratory distress. Repeated exposure to low levels, or long-term, low-level exposure, can cause muscle tremors, irritability, personality changes, or rashes.

Nerve damage from mercury may start with a loss of sensitivity in hands and feet, difficulty in walking, or slurred speech. In rare cases it has caused paralysis and even death. The risk varies depending on how much mercury a person is exposed to, how long a person is exposed to mercury, and how often the person is exposed.

## **Nuisance Dusts**

Nuisance dusts refer to airborne dust particles without specific occupational exposure standards. High levels of nuisance particulates in the air may reduce visibility and can get into the eyes, ears and nose.

### **6.2.1.1 Other Potential and Known Chemical Hazards**

#### **Gasoline**

Gasoline is a mixture of petroleum-derived chemicals. Benzene, toluene, ethyl benzene and xylene ("BTEX") are the airborne contaminants of most concern. Health hazards associated with gasoline exposure are mild irritation and effects on the central nervous system. It is a fire and explosion hazard.

#### **Diesel**

Diesel is a fuel oil and a refined petroleum solvent that is mixture of paraffins and aromatics. Health hazards associated with diesel exposure are mild irritation to the eyes, skin, and throat. It is a fire hazard.

### **Carbon Monoxide**

Carbon Monoxide (“CO”) is an odorless, colorless gas and a byproduct of combustion. CO is produced any time fuel is burned in cars or trucks, small engines, stoves, lanterns, grills, fireplaces, gas ranges, or furnaces. CO can build up indoors, in trenches, or in partially enclosed outdoor spaces. Too much CO in surrounding air can cause acute poisoning. The most common symptoms of CO poisoning are headache, dizziness, weakness, upset stomach, vomiting, chest pain, and confusion. Continued exposure to CO can result in fainting and ultimately death. It is important to keep any generators in a well ventilated area and to ensure the exhaust is not collecting in an enclosed space or being pulled into a nearby HVAC system. No cars or heavy equipment should be left running in any enclosed space. If someone is experiencing symptoms of carbon monoxide poisoning, they will be immediately moved to fresh air and taken to the hospital if their condition does not quickly improve.

### **6.2.2 Chemical Hazard Control**

An appropriate combination of engineering/administrative controls, work practices, and PPE shall be used to reduce and maintain employee exposures to a level at or below published exposure levels.

Water trucks will be used for suppression of fugitive dust and minimizing airborne particulates. Site air monitoring will be conducted to confirm the effectiveness of the controls.

#### **6.2.2.1 Site Air Monitoring**

The purpose of air monitoring is to identify and quantify airborne contaminants to assist with worker protection. The Superintendent/SSO or their designee will have the ability to perform air monitoring. At the commencement of earthwork activities, and periodically throughout the project, air monitoring will be performed on-site with the use of integrated sampling (personal air monitors).

The Superintendent/SSO or their designee will log where site monitoring is conducted. All instruments used for air monitoring during this project shall be calibrated and logged prior to use in accordance with manufacturer recommendations.

Visual air monitoring for fugitive dust will be performed continuously at each jobsite. Perimeter air monitoring for dust will be performed with direct reading instrument(s) (pDR 1500 or equivalent) at the commencement of earthwork activities.

Personal air monitoring samples will also be captured periodically throughout the project in order to maintain surveillance of worker exposure to airborne particulates. This personal air sampling will be accomplished using a Gil-5 air pump, or equivalent, equipped with CME cartridges for capture of heavy metal particulates.

The methods used for air monitoring will meet the following provisions:

- Fugitive Dust – EPA approved equivalent methods for particulate matter 2.5 microns or greater in diameter (PM-2.5) and/or particulate matter 10 microns or greater in diameter (PM-10) monitoring;

- Heavy Metals - National Institute for Occupational Safety and Health (“NIOSH”) Method 7300, Metal Scan.

## **7. LEVEL OF PROTECTION AND PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment will be used by all Personnel when entering any of the established jobsite work zones. All persons entering the exclusion or contamination reduction zone must wear the appropriate level of protection as designated by this HASP. Whenever Personnel can control their exposure through engineering or administrative controls, they shall do so.

The level of protection required shall be upgraded or downgraded based on the results of personal air monitoring, action levels from direct reading instruments or a change in site conditions. Changes in protection levels will be determined by the Site Safety Officer (SSO) and approved by the Project Coordinator/Assistant Project Coordinator.

### **7.1 LEVEL OF PROTECTION**

Personnel working on-site will use one of the following levels of protection:

- Level-D: Used for all Personnel in the exclusion zone. This includes high visibility apparel (shirt or safety vest), long sleeved pants, hardhat, protective eyewear, safety-toed work boots, gloves (type based on hazard) and hearing protection (as necessary).
- Modified Level-D: All components of Level-D, plus semi-permeable or impermeable coverall and chemical protective gloves and boots. Used when a greater level of skin protection is required.
- Level-C: All components of Modified Level-D, plus respiratory protection. Used when criteria for using air-purifying respirators (APR) are met and a greater level of protection is required.

### **7.2 GENERAL CONSIDERATIONS FOR RESPIRATOR USAGE**

Personnel using respiratory protective equipment shall follow the established policies and procedures. The following directives listed below will be followed whenever respiratory protection is used for this project. Respirators will not be used preventatively. Usage will be determined based upon results of direct air monitoring and worker exposure assessments. The selection of a respirator for any given situation shall require consideration of the following factors:

- The nature of the hazard;
- Assessment of monitoring results;
- The characteristics of the hazardous operation or process;
- The activity of the workers in the hazardous area;
- The location of the hazardous area with respect to a safe area having respirable air;
- The period of time for which respiratory protection may be provided;
- The physical characteristics, functional capabilities and limitations of various types of respirators; and/or,
- The respirator protection factors and respirator fit.

### **7.3 CARTRIDGE CHANGES**

All cartridges will be changed as determined necessary by the SSO. Water saturation of the HEPA filter or dusty conditions may necessitate more frequent changes. Changes will also occur whenever Personnel begin to experience increased inhalation resistance, or breakthrough of a chemical with warning properties.

#### **7.4 INSPECTION, CLEANING, AND STORAGE**

Respirators will be inspected before each use by the user and checked periodically by the SSO. All respirators and associated equipment will be decontaminated and hygienically cleaned before and after each use. All respirators will be stored in bags or boxes.

#### **7.5 FACIAL HAIR**

Personnel may not have any facial hair which interferes with the respirator's sealing surface.

#### **7.6 CORRECTIVE LENSES**

Normal eyeglasses may be worn under full-face respirators. However, during fit testing, health and safety staff will ensure that the eye glasses do not interfere with the seal of the face-piece to the face of the user. Contact lenses can be worn with any type of respirator, but their use is not recommended in dusty atmospheres while wearing a half-mask face-piece.

#### **7.7 MEDICAL CERTIFICATION**

Only Personnel who have been certified by a physician as being physically capable of respirator usage will be issued a respirator.

## 8. DECONTAMINATION PROCEDURES

All equipment, materials, and Personnel will be evaluated for contamination upon leaving the exclusion area. Equipment and materials will be decontaminated and/or disposed and Personnel will be decontaminated, as necessary. Decontamination will be performed in the contamination reduction area or any designated area such that the exposure of uncontaminated employees, equipment, and materials will be minimized. Specific procedures are described below.

**Equipment/Material Decontamination Procedures:** Sampling equipment will be decontaminated using phosphate-based detergent wipes. Non-electronic equipment that require additional decontamination will be decontaminated in 3 steps using a 5-gallon bucket with Alconox® and distilled water. Disposable sampling supplies will be used as practicable.

**Ventilation:** All decontamination procedures will be conducted in a well-ventilated area.

**Personnel Decontamination Procedures:** Remove and discard all disposable PPE, wipe down safety goggles and hard hats with alcohol-free swabs, boot wash, and wash hand and face with warm soapy water prior to leaving site.

**PPE Requirements for Personnel Performing Decontamination:** Level D using double nitrile gloves.

**Personnel Decontamination in General:** Field Personnel must remove contaminated PPE and wash exposed areas with soap and potable water before entering the support zone. Personnel should shower at the end of each shift.

**Disposition of Disposable PPE:** Disposable PPE must be rendered unusable and disposed properly.

**Disposition of Decontamination Wastes (e.g., dry wastes, decontamination fluids, etc.):** Investigation-derived wastes will be properly disposed.

## 9. EMERGENCY RESPONSE

Prior to all material removal activities, the emergency access and egress routes for the Affected Property will be identified and announced to Personnel. Personnel shall follow direction of the Superintendent/SSHO when an emergency situation arises.

### 9.1 EMERGENCY CONTACT INFORMATION

Dial 9-1-1 POLICE FIRE MEDICAL EMERGENCIES Dial 9-1-1	
Alternative to 9-1-1 Emergency Number   Humboldt General Hospital EMS Rescue	(775) 623-6429
Police/Sheriff – Humboldt County Sheriff's Office	(775) 623-6429
Fire/Rescue/Hazmat – Winnemucca Fire Department	(775) 623-6429
Ambulance/EMS – Humboldt General Hospital, EMS Rescue	(775) 623-6429
Hospital – Humboldt General Hospital   118 E Haskell St.   Winnemucca, NV 89445 See Exhibit C for directions.	(775) 623-5222
Poison Control Hotline	(800) 222-1222
BLM Fire – Central Nevada Interagency Dispatch Center	(775) 623-1555

### 9.2 BARRICK & OTHER EMERGENCY CONTACTS

**Project Coordinator:** Clark Burton (775) 934-8624

**Asst Project Coordinator:** Kevin Hamatake (435) 830-1428

**Project Manager:** TBD

**Superintendent:** TBD

**Site Safety Officer:** TBD

### 9.3 EMERGENCY SERVICES AND SUPPLIES

Personnel shall be provided concise and clear directions and accessible transportation to local emergency services. A map showing directions to the nearest hospital will be posted on site. Fire extinguishers and first aid kits will be available at all times.

### 9.4 MEDICAL EMERGENCY PROCEDURES

The following procedures should be observed if an incident occurs:

#### Minor Injury

- Notify the Superintendent/SSO
- Have qualified first aid Personnel treat injury
- Complete Incident Report
- Notify Project/Assistant Coordinator

### **Serious or Major Injury**

In the event of a medical emergency when actual or suspected serious injury occurs, the following procedures shall be implemented:

- Notify the Superintendent/SSO.
  - Survey the scene and evaluate whether the area is safe for entry.
  - Remove the exposed or injured person(s) from immediate danger.
  - Render first aid if necessary.
  - Decontaminate affected Personnel after critical first aid is provided.
  - Obtain emergency services and/or first responder services – This procedure shall be followed even if there is no visible injury for major events.
1. Call 9-1-1 to summon emergency assistance (fire/EMS).
  2. Identify location, request medical assistance, provide name and telephone number.
  3. Provide any other pertinent information to aid the response efforts.
- Other Personnel in the work area shall be evacuated to a safe distance until the SSO determines that it is safe for work to resume. If there is any doubt regarding the condition of the work area, work shall not commence until all hazard control issues are resolved.
  - Complete Incident Report, provided in Exhibit B.
  - Notify Project/Assistant Coordinator

### **Fatality**

If a fatal injury occurs, the following steps will be followed:

- Personnel will immediately notify the Superintendent/SSO;
- The Superintendent/SSO will notify the Barrick Project/Assistant Coordinator as quickly as possible;
- Contractor will coordinate with Barrick to initiate contact with OSHA and other appropriate agencies;
- All work activities on the project must be stopped on the project for for investigative purposes; and,

## **9.5 OTHER EMERGENCY RESPONSE PROCEDURES**

**Accounting for Persons:** Any person entering the Affected Property will be required to sign-in daily so, in the event of an emergency, Barrick can account for all persons.

**On-Site Evacuation Signal/Alarm (must be audible and perceptible above ambient noise and light levels):** Three car horn blasts.

**On-Site Assembly Area:** To be identified during the initial safety meeting before work begins.

**Emergency Egress Route to Get Off Site:** To be identified during the initial safety meeting before work begins.

**Off-Site Assembly Area:** To be identified during the initial safety meeting before work begins.

**Preferred Means of Reporting Emergencies:** Verbal/cell phone/radio to SSO, call 911.



**Site Security and Control:** In an emergency situation, Personnel will attempt to secure the affected area and control site access.

**Emergency Decontamination Procedures:** Remove and secure contaminated PPE. Wash exposed areas if possible. Inform medical personnel of any known or suspected contamination/exposure.

**PPE:** The SSO and Section 7 of this plan will provide guidance regarding appropriate PPE.

**Incident Reporting Procedures:** Personnel will report any incident or near-miss to the SSO and Project/Assistant Coordinator and complete an Incident report.

## **9.5 SPILL RESPONSE PROCEDURES**

In the case of a spill of a contaminated or hazardous materials, the following procedures shall be followed:

- Stop the source, if it is safe to do so;
- Contain the spill;
- Notify the superintendent/SSO (Superintendent will coordinate additional resources, as needed)
- Initiate appropriate clean-up;
- Document the incident and complete incident report;
- Superintendent/SSO will notify Barrick;
- Contractor will coordinate with Barrick on disposal of contaminated materials.

## **9.6 SITE EVACUATION PLAN**

In the case of a large fire, explosion, toxic vapor release or other large scale emergency, the Affected Property must be evacuated. Personnel must evaluate the situation and identify the upwind direction. Personnel will evacuate to an upwind location following these steps:

- Personnel will assemble in an upwind area when the situation permits and a roll call will be conducted by the Superintendent/SSO (or designee);
- Determine the extent of the problem and develop an appropriate action plan;
- The above procedures will apply to all Personnel and will be discussed with them prior to the commencement of work.

## **9.7 EMERGENCY WARNING SIGNAL**

The primary means of communicating with Personnel on-site will be verbally, either face-to-face or via 2-way radio. In the event of an emergency when verbal communication is not possible, a handheld "warning" air horn will be sounded which will be the indicator to stop work or evacuate the job site. After three (3) loud blasts from the "warning" horn, Personnel will assemble at a pre-determined meeting location. This location will be determined and announced during the Tailgate Safety Meeting before work commences on-site.

## **9.8 EARTHQUAKE RESPONSE**

If an earthquake should occur during the course of site activities, the following steps should be taken:

- Implement immediate STOP WORK.
- Remain calm and do not panic.
- If indoors, stay indoors away from windows and take cover under heavy furniture if possible.
- Do not use or do anything that might be a source of ignition, i.e., smoking, cutting, or welding.
- If outdoors, stay away from power lines, power poles, and windows.
- Gather at the pre-determined evacuation meeting location when safe to do so.
- The Superintendent/SSO will coordinate further procedures with the Project Coordinator.

## **9.9 SEVERE WEATHER CONTINGENCIES**

Personnel must understand the Emergency Response and General Evacuation Procedures for their location on the job site. This information will be provided during the site specific orientation. Employees must also know the correct access/egress routes and the evacuation assembly point location(s).

In the event of severe weather, the following procedures will be followed:

- Personnel will implement a STOP WORK and take shelter.
- Upon notification that an evacuation is in progress, all Personnel and visitors will immediately use the nearest available exit and proceed to their designated assembly/rally point location.
- If lightning is occurring, stop outdoor work and move indoors, or stay inside an enclosed vehicle (do not continue to linger outdoors).
- In case of high wind conditions, seek low ground (i.e. ditch or basement) and shield your body parts from airborne material. Stay away from windows during severe wind events.

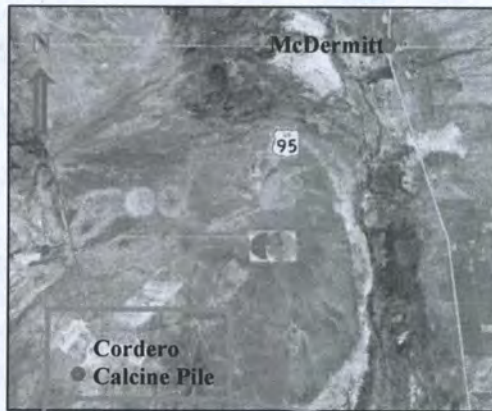
### On-Site Health and Safety Plan Acceptance

I have read, understood, and agree with the information set forth in this health and safety plan (HASP), and will follow guidance in the plan. I understand the training and medical monitoring requirements for conducting activities covered by the HASP and have met these requirements.

This plan has been prepared solely for the purpose of protecting the health and safety of Barrick Personnel. Contractors, subcontractors, visitors, and others at the site are required to following provisions in this document at a minimum, but must referent to the organizations' health and safety program for their protection.


[illegible]

**EXHIBIT A**  
**AFFECTED PROPERTY MAP**



**EXHIBIT B**  
**INCIDENT REPORTING FORM**

[See attached.]

Site Name		<h1 style="text-align: center;">Incident Reporting Form</h1> <p style="text-align: center;">(Use ball point pen only &amp; complete in block letters (electronic form on Barrick Knowledge Centre)</p>				 <h2 style="text-align: center;">BARRICK</h2>			
RIMS Number									
<b>PART A: INITIAL REPORT (Information to be entered into RIMS within 48 hours)</b>									
<b>Incident Details</b>									
1. Incident Title									
2. Incident Type Category		<input type="checkbox"/> <b>Operational</b> <input type="checkbox"/> Cyanide Related <input type="checkbox"/> Heap Leach – Abnormal Conditions <input type="checkbox"/> Mercury Related <input type="checkbox"/> Production Loss <input type="checkbox"/> Property Damage <input type="checkbox"/> Schedule Delays <input type="checkbox"/> Tailings Abnormal Conditions		<input type="checkbox"/> <b>Health &amp; Safety</b> <input type="checkbox"/> Injury <input type="checkbox"/> Illness <input type="checkbox"/> Critical Risks – Safety (see 2.1) <input type="checkbox"/> Hazard – Safety and Health <input type="checkbox"/> High Potential - Safety <input type="checkbox"/> H&S Regulatory Violations or Citations <input type="checkbox"/> Near Miss <input type="checkbox"/> Non-Work Related		<input type="checkbox"/> <b>Environmental</b> <input type="checkbox"/> Hazard - Environmental <input type="checkbox"/> Legal and Other Obligations <input type="checkbox"/> Near Miss – Environmental <input type="checkbox"/> Spill or Release <input type="checkbox"/> Waste Management <input type="checkbox"/> Wildlife and Habitat			
		<input type="checkbox"/> <b>Security</b> <input type="checkbox"/> Intruder/Trespasser		<input type="checkbox"/> <b>Community</b> <input type="checkbox"/> Public Complaint					
2.1 H&S Critical Risks		<input type="checkbox"/> Aviation <input type="checkbox"/> Confined Space <input type="checkbox"/> Cranes and Lifting <input type="checkbox"/> Electrical <input type="checkbox"/> Fall from Heights		<input type="checkbox"/> Fires (Fixed & Mobile) <input type="checkbox"/> Ground Falls (Surface and UG) <input type="checkbox"/> Handling Explosives & Blasting <input type="checkbox"/> Hazardous Material & Bio Agents <input type="checkbox"/> Lightning		<input type="checkbox"/> Machine Guarding & Barricading <input type="checkbox"/> Mobile Equipment (HV and LV) <input type="checkbox"/> Operations (Infrastructure failure) <input type="checkbox"/> Stored Energy <input type="checkbox"/> Trenches & Excavation			
3. Incident Date / Time		Incident Date (dd/mmm/yyyy) / /		Incident Time (24hr clock) :		Date of Report (dd/mmm/yyyy) / /			
4. Incident Reported By:		Surname		Forename		Signature			
5. Details		Brief description of what happened, injuries or any equipment / environmental damage sustained, activity at the time:							
6. Department where Incident Occurred		Department							
7. Equipment Involved		<b>Primary Equipment</b> <input type="checkbox"/> None <input type="checkbox"/> ATV <input type="checkbox"/> Aviation <input type="checkbox"/> Backhoe <input type="checkbox"/> Blasting Truck <input type="checkbox"/> Bolter <input type="checkbox"/> Bucket/Pole Truck <input type="checkbox"/> Bus/Shuttle/Man-Carrier <input type="checkbox"/> Crane <input type="checkbox"/> Dozer <input type="checkbox"/> Drill <input type="checkbox"/> Emergency <input type="checkbox"/> Excavator <input type="checkbox"/> Forklift <input type="checkbox"/> Grader <input type="checkbox"/> Haul Truck <input type="checkbox"/> Hoist <input type="checkbox"/> Light Vehic <input type="checkbox"/> Loader <input type="checkbox"/> Lube/Service Truck <input type="checkbox"/> Scissor Lift <input type="checkbox"/> Scoop <input type="checkbox"/> Semi-Tractor/Trailer <input type="checkbox"/> Shovel <input type="checkbox"/> Skid Steer <input type="checkbox"/> Tractor/Utility <input type="checkbox"/> Water Truck <input type="checkbox"/> Other				<b>Secondary Equipment</b> <input type="checkbox"/> None <input type="checkbox"/> ATV <input type="checkbox"/> Aviation <input type="checkbox"/> Backhoe <input type="checkbox"/> Blasting Truck <input type="checkbox"/> Bolter <input type="checkbox"/> Bucket/Pole Truck <input type="checkbox"/> Bus/Shuttle/Man-Carrier <input type="checkbox"/> Crane <input type="checkbox"/> Dozer <input type="checkbox"/> Drill <input type="checkbox"/> Emergency <input type="checkbox"/> Excavator <input type="checkbox"/> Forklift <input type="checkbox"/> Grader <input type="checkbox"/> Haul Truck <input type="checkbox"/> Hoist <input type="checkbox"/> Light Vehicle <input type="checkbox"/> Loader <input type="checkbox"/> Lube/Service Truck <input type="checkbox"/> Scissor Lift <input type="checkbox"/> Scoop <input type="checkbox"/> Semi-Tractor/Trailer <input type="checkbox"/> Shovel <input type="checkbox"/> Skid Steer <input type="checkbox"/> Tractor/Utility <input type="checkbox"/> Water Truck <input type="checkbox"/> Other			
		8. Responsible for Incident Approval		Surname		Forename			
9. Actual Severity		<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		10. Potential Severity		<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low			
<b>People Involved</b>									
11. Person #1* Involved *If more than 1 persons involved for this incident – use separate sheet(s)		Surname:		Forename:		<input type="checkbox"/> Employee <input type="checkbox"/> Contractor <input type="checkbox"/> Gender:(M/F)			
		Occupation/Job Title:		Department:		If Contractor, Company Name:			
		Date of Birth / /		Start of Shift: (24hr clock) :		Days into Rotation:			
		<input type="checkbox"/> Injury or Illness – If yes, complete Part B (Injury Illness Information) <input type="checkbox"/> Witness* <input type="checkbox"/> Complainant* <input type="checkbox"/> Other Involvement							
12. Result (Classification, Severity)		<input type="checkbox"/> Fatality <input type="checkbox"/> Lost Time <input type="checkbox"/> Restricted Duty <input type="checkbox"/> Medical Treatment <input type="checkbox"/> Minor Injury (First Aid) <input type="checkbox"/> Occupational Illness <input type="checkbox"/> No Injury							

Environmental Information			
13. Environmental Basic Information	<b>Basic Spill Information</b> <b>Substance Spilled:</b> <input type="checkbox"/> Fuels <input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Chemicals <input type="checkbox"/> Antifreeze <input type="checkbox"/> Calcium Hydroxide (Lime) <input type="checkbox"/> Chlorine <input type="checkbox"/> Oils <input type="checkbox"/> Copper Sulfate <input type="checkbox"/> Ferric Sulfate <input type="checkbox"/> Hydroxide <input type="checkbox"/> Hydroxide <input type="checkbox"/> Ferrous Sulfate <input type="checkbox"/> Ore/Concentrates <input type="checkbox"/> Mercury <input type="checkbox"/> Waste <input type="checkbox"/> Tailings <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Non-Treated Effluent <input type="checkbox"/> Saline Water <input type="checkbox"/> Other <input type="checkbox"/> Flocculant <input type="checkbox"/> Hydraulic Fluid <input type="checkbox"/> Lubricating <input type="checkbox"/> Nitric Acid <input type="checkbox"/> Sodium <input type="checkbox"/> Sulfuric Acid <input type="checkbox"/> Cyanide	<b>Basic Exceedance Information</b> <b>Legislation/Permit:</b>  <b>Release to:</b> <input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Land <input type="checkbox"/> Not Applicable  <b>Legal / Obligation:</b>	<b>Basic Wildlife &amp; Habitat Information</b> <input type="checkbox"/> Types of Wildlife <input type="checkbox"/> Mammals <input type="checkbox"/> Birds <input type="checkbox"/> Reptiles <input type="checkbox"/> Amphibians <input type="checkbox"/> Fish <input type="checkbox"/> Types of Habitat <input type="checkbox"/> Wetlands <input type="checkbox"/> Grasslands/Rangelands <input type="checkbox"/> Forest <input type="checkbox"/> Critical Habitat <input type="checkbox"/> Desert
	<b>Spill Details:</b> <p>pH:                      Concentration:</p> <p>Total Mass/volume:</p> <p>Volume Outside Primary Containment:</p> <p>Volume Outside Secondary Containment:</p> <p>Enter Water way?    Yes <input type="checkbox"/> No <input type="checkbox"/>                      Mass/volume:</p> <p>Name of water course:</p> <p>Exit Site Boundary?    Yes <input type="checkbox"/> No <input type="checkbox"/>                      Mass/volume:                      Area of impact:</p>		<b>Wildlife &amp; Habitat Details:</b> <p>Species:</p> <p>Number Affected :</p> <p>Number Mortalities:</p> <p>Chemical Related?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
	<b>Basic Information for Waste Management, Hazard or Near Miss Environmental Incident:</b>		
	<b>Is this an Environmental Corporate Reportable Incident</b> Yes <input type="checkbox"/> No <input type="checkbox"/>		
<b>Signature Block</b>			
Supervisor Signature	Name:	Signature:	Date:    /    /
Superintendent Signature	Name:	Signature:	Date:    /    /
S&H Signature	Name:	Signature:	Date:    /    /
Environmental Signature	Name:	Signature:	Date:    /    /
Other Signature	Name:	Signature:	Date:    /    /

Complete Supplemental Information in parts B, C, and D per initial investigation

## PART B. INJURY/ILLNESS INFORMATION & FIRST AID TREATMENT

(Required Supplementary Information to be entered into RIMS per initial investigation)

<b>1. Person # 1</b> (Cont. from Part A)	Surname	Forename		Employee Number	Gender (M/F)
<b>Nature of Injury</b>		<b>Type of Contact</b>		<b>Illness</b>	
<input type="checkbox"/> Abrasion <input type="checkbox"/> Amputation <input type="checkbox"/> Avulsion <input type="checkbox"/> Bite/Sting <input type="checkbox"/> Bruise/ Contusion <input type="checkbox"/> Burns <input type="checkbox"/> Concussion <input type="checkbox"/> Crush Injury <input type="checkbox"/> Cut/Puncture		<input type="checkbox"/> Dislocation <input type="checkbox"/> Foreign Body <input type="checkbox"/> Fracture <input type="checkbox"/> Hernia <input type="checkbox"/> Inhalation <input type="checkbox"/> Internal Injury <input type="checkbox"/> Sprain/Strain <input type="checkbox"/> Suffocation		<input type="checkbox"/> Biological <input type="checkbox"/> Caught On <input type="checkbox"/> Chemical <input type="checkbox"/> Electrical <input type="checkbox"/> Explosion <input type="checkbox"/> Fall-Same Level <input type="checkbox"/> Fall From Heights	
		<input type="checkbox"/> Irritant <input type="checkbox"/> Repetitive Motion <input type="checkbox"/> Strain/Sprain <input type="checkbox"/> Struck Against <input type="checkbox"/> Struck By <input type="checkbox"/> Temperature/Weather <input type="checkbox"/> Trapped/Pinched <input type="checkbox"/> Vehicle		<input type="checkbox"/> Dust-Disease of Lungs <input type="checkbox"/> Illness for IH Purposes <input type="checkbox"/> Noise for IH Purposes <input type="checkbox"/> Physical Chemical Exposure <input type="checkbox"/> Poisoning <input type="checkbox"/> Repetitive Trauma <input type="checkbox"/> Skin Disorders <input type="checkbox"/> Respiratory Condition Due to Toxic Agent	
<b>1.2 Part of Body*</b> (Check boxes) <small>*Combined list for Nature of Illness/Injury field selection in RIMS</small>	<div>Left      Right</div> <input type="checkbox"/> Abdomen <input type="checkbox"/> Ankle <input type="checkbox"/> Arm (Upper) <input type="checkbox"/> Back <input type="checkbox"/> Breast <input type="checkbox"/> Buttock <input type="checkbox"/> Calf <input type="checkbox"/> Chest/Ribs <input type="checkbox"/> Ear <input type="checkbox"/> Elbow <input type="checkbox"/> Eye		<div>Left      Right</div> <input type="checkbox"/> Face <input type="checkbox"/> Fingers <input type="checkbox"/> Foot <input type="checkbox"/> Forearm <input type="checkbox"/> Forehead <input type="checkbox"/> Groin <input type="checkbox"/> Hand <input type="checkbox"/> Head <input type="checkbox"/> Hip <input type="checkbox"/> Jaw/Chin <input type="checkbox"/> Knee		<div>Left      Right</div> <input type="checkbox"/> Leg <input type="checkbox"/> Lips <input type="checkbox"/> Lungs <input type="checkbox"/> Neck <input type="checkbox"/> Nose <input type="checkbox"/> Shoulder <input type="checkbox"/> Thigh <input type="checkbox"/> Thumb <input type="checkbox"/> Toes <input type="checkbox"/> Wrist <input type="checkbox"/> None/Not specified
<b>2. First Aid / Emergency Services.</b>	Record any observations and treatment provided, as well as any advice given to the patient.				
<b>3. Outcome</b>	<input type="checkbox"/> Returned to normal duties <input type="checkbox"/> Referred or transferred for medical treatment <input type="checkbox"/> Returned to alternate duties				
<b>4. Witnesses</b>	Name	Name	Name		
<b>5. Witness Statement (attach, if necessary)</b>					

## PART C. NOTIFICATION and RECORDING

(Required Supplementary Information to be entered into RIMS per initial investigation)

<b>1. Notification to a Government Agency</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No		Time reported (24 hour clock) :	
	Notified By:		Date reported (dd/mm/yyyy) / /	
	Agency:		Contact Name:	
<b>2. Corporate Notification</b> <input type="checkbox"/> N/A	Notified By:		Flash Report:	Date: (dd/mm/yyyy) / /
<b>3. Supervisor signature</b>	Name:	Signature:		Date: (dd/mm/yyyy) / /



**PART D. INCIDENT INVESTIGATION AND COST DETAILS****(Supplementary Required Information to be entered into RIMS per initial investigation and as required by Incident Reporting Standard)**

<b>1. Fatigue</b>	Is fatigue a possible factor in the incident? <input type="checkbox"/> Yes* <input type="checkbox"/> No * If Yes, complete the Circadian FACTS questionnaire in RIMS and enter Result of Fatigue Assessment in RIMS																	
<b>2. Incident Causes</b>	<input type="checkbox"/> TapRoot Analysis (List Root Causes):																	
<b>3. Facts From Investigation:</b>																		
<b>4. Incident Cost</b>	<table border="1"><tr><td>Cost of Investigation:</td><td>(US\$)</td><td>Production Losses:</td><td>(US\$)</td></tr><tr><td>Cost of Property Damage:</td><td>(US\$)</td><td>Medical &amp; Legal Costs,:</td><td>(US\$)</td></tr><tr><td>Environmental Cost:</td><td>(US\$)</td><td>Fines/Liabilities</td><td></td></tr><tr><td colspan="4">Cost Details:</td></tr></table>		Cost of Investigation:	(US\$)	Production Losses:	(US\$)	Cost of Property Damage:	(US\$)	Medical & Legal Costs,:	(US\$)	Environmental Cost:	(US\$)	Fines/Liabilities		Cost Details:			
Cost of Investigation:	(US\$)	Production Losses:	(US\$)															
Cost of Property Damage:	(US\$)	Medical & Legal Costs,:	(US\$)															
Environmental Cost:	(US\$)	Fines/Liabilities																
Cost Details:																		
<b>Incident Corrective/Immediate and Preventative Actions (Enter actions in RIMS under Incident Investigation – Action Required)</b>																		
<b>5. Corrective or Immediate Action Taken:</b>	Description of Actions:	Due Date of Corrective Action:     /     /																
		Person(s) Responsible:																
<b>6. Preventative Action Taken:</b>	Description of Actions:	Due Date of Corrective Action:     /     /																
		Person(s) Responsible:																

**EXHIBIT C**  
**HOSPITAL ROUTE MAP AND DIRECTIONS**



**Directions to Humboldt General Hospital**  
118 Ease Haskell Street, Winnemucca, NV 89445

- 1. Take State Hwy 793 to US-95 S**  
18 min (7.7 mi)
- 2. Turn right onto US-95 S**  
1 h (69.1 mi)
- 3. Continue on NV-795 E/Rhinehart St. Take E 2nd St to Haskell St. in Winnemucca**  
6 min (3.0 mi)

## **INSPECTION AND MAINTENANCE PLAN**

**Cordero Calcine Pile Cover  
McDermitt CERCLA Site  
Humboldt County, Nevada**

Prepared By:

Barrick Gold U.S. Inc.  
2270 Corporate Circle, Suite 100  
Henderson, NV 89074

June 28, 2017

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## **1. DEFINITIONS**

Whenever terms listed below are used in this Inspection and Maintenance Plan, the following definitions shall apply. To the extent that any of the following definitions are in conflict with the AOC, the definition and meaning established in the AOC shall govern and control.

**"Administrative Settlement Agreement and Order on Consent for Removal Action" or "AOC"** shall mean the Administrative Settlement Agreement and Order on Consent For Removal Action among Barrick Gold U.S., Inc., EPA, and BLM pertaining to the Affected Property.

**"Affected Property"** shall mean the Cordero Mine calcine mercury tailings pile located on patented claims owned by Barrick Gold U.S., Inc. that also may have comprised part of the former McDermitt Mine site, and on Federal land managed by the BLM. The Affected Property is generally located within the NE 1/4 of Section 33, T47N, R37E, Mt. Diablo Meridian, Humboldt County, Nevada, approximately 11 miles southwest of the town of McDermitt, Nevada.

**"Barrick"** shall mean Barrick Gold U.S., Inc. and any successors and assigns.

**"BLM"** shall mean the United States Department of the Interior, Bureau of Land Management and any successor departments or agencies of the United States.

**"Calcine Pile"** shall mean the calcined mercury tailings from the former Cordero Mine operations, located on the Affected Property..

**"EPA"** shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

**"Inspection and Maintenance" or "I&M"** shall mean the post-removal inspection and maintenance activities discussed in Sections 3 and 4 herein.

**"Removal Action Work Plan" or "RA Work Plan"** shall mean the Removal Action Work Plan, June 28, 2017, detailing the Work.

**"Work"** refers to the removal action work tasks, as described more fully in Section 3 of the Removal Action Work Plan.

## **2. OVERVIEW**

### **Introduction**

This Inspection and Maintenance Plan sets forth the Post-Removal inspection and maintenance tasks that Barrick will perform to ensure the integrity of the remedy performed on the Affected Property. This Inspection and Maintenance Plan becomes effective upon the issuance of the Notice of Completion of Work provided for in Paragraph 124 of the AOC.

### **Location**

The Calcine Pile is on the Affected Property.

### **Land Use**

Prior to historical mining in the area, land uses were predominantly grazing and wildlife habitat. Post-mining land use ("PMLU") is anticipated to be limited, recognizing the limitations on use from the fencing that will be maintained.

### **Description**

The area subject to this Inspection and Maintenance Plan consists of the Calcine Pile located on the Affected Property that was generated by Cordero Mining Company, a portion of which resides on Barrick-controlled property and on public lands managed by BLM.

### **3. INSPECTION**

Six months after construction and thereafter annually (once per calendar year), starting the year following the issuance of the Notice of Completion of Work described in Paragraph 124 of the AOC, Barrick shall inspect the Site to evaluate the integrity and effectiveness of the cover installed on the Calcine Pile, the storm water controls installed around the Calcine Pile, and the fence constructed around the Calcine Pile. Specifically, the inspection will include:

1. Visual inspection of the Calcine Pile for areas of exposed calcine tailings;
2. Visual inspection of the storm water control features to ensure storm water is being properly conveyed around the toe of the Calcine Pile;
3. Visual inspection of the fence to ensure it restricts public access to the Calcine Pile.

### **4. MAINTENANCE**

If the visual inspection reveals that the cover, storm water control, or fence need maintenance or repair, Barrick shall, under BLM oversight, perform any maintenance or repair that is consistent with the scope of the Work outlined in the Removal Action Work Plan. Specifically, Barrick shall:

1. Install additional cover material on any areas of exposed calcine tailings consistent with the scope of work described in Section 3.5 of the Removal Action Work Plan;
2. If the storm water controls are not conveying storm water around the toe of the Calcine Pile, repair or maintain the drainage along the west side of the Calcine Pile so that it conveys storm water around the toe of the Calcine Pile;
3. If the fence is not adequately restricting public access, repair or maintain the fence consistent with the scope of work described in Section 3.6 of the Removal Action Work Plan.

Under no circumstances is Barrick obligated to undertake repairs or maintenance at the Site that exceed the scope of the work described in the Removal Action Work Plan.

### **5. RECORD KEEPING AND REPORTING**

Barrick shall prepare and maintain annual inspection and maintenance reports. The report shall

---

Inspection and Maintenance Plan  
Cordero Calcine Pile  
McDermitt Closure Site  
Humboldt County, NV

(1) describe the inspection, including the date it was conducted and by whom it was conducted, (2) identify issues with the integrity of cover material, storm water controls, and/or fence, and (3) describe the maintenance or repairs performed. Where appropriate, the report also shall include photos and notes taken during the visual inspection. Barrick shall provide these reports to BLM.

#### **6. DURATION**

After five (5) years of inspection, BLM will, in coordination with Barrick, assess Barrick's future inspection and maintenance obligations under this I & M Plan.



**DRAFT**

8/29/2017 2:55 PM

When Recorded Return To:  
Barrick Gold U.S., Inc.  
Attn: Bob Brock  
460 West 50 North, Suite 500  
Salt Lake City, Utah 84101

Appendix D

DRAFT

Pursuant to NRS § 239B.030, the undersigned hereby affirms that the document, including any exhibits, submitted for recording does not contain the social security number of any person

### **ENVIRONMENTAL COVENANT**

1. This Environmental Covenant is entered into by Barrick Gold U.S., Inc. ("Owner Respondent"/ "Grantor"), and the Nevada Division of Environmental Protection ("NDEP"/ "Holder"/ "Grantee"), pursuant to NRS Chapter 445D for the purpose of imposing the activity and use limitations set forth herein on Owner Respondent's real property underlying the Cordero Calcine Pile, more specifically described on Exhibit A (the "Property"), in conjunction with a removal action under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 *et seq.* ("CERCLA").

### **Environmental Response**

2. The Property is subject to an "environmental response action" as that term is defined in NRS § 445D.070. Specifically, the Property is located within the McDermitt Calcine site (the "Site") located near the town of McDermitt, Humboldt County, Nevada. Historical mining activities resulted in the generation of a calcine mercury tailings pile, which is located on the Property and property owned by BLM. The calcine tailings have been the subject of removal activities pursuant to CERCLA.

3. A removal assessment conducted in 2010 determined that calcine tailings that had been removed from the calcine tailings pile and used in multiple locations in and around the town of McDermitt contained elevated levels of Mercury and Arsenic. EPA carried out removal activities in 2013 which excavated tailings from the locations in and around the town of McDermitt and consolidated them on the portion of the calcine tailings pile owned by the United States Department of the Interior, Bureau of Land Management ("BLM"). On [enter execution date], Owner Respondent and the Agencies (defined below) entered into an Administrative Settlement and Order On Consent For Removal Action, under which Owner Respondent agreed to undertake additional removal activities with regard to the calcine tailings pile.

4. The removal action on the Property included the re-grading of the calcine tailings pile,

placement of cover material on the calcine tailings pile, and installation of fencing around the perimeter of the calcine tailings pile, as more fully described in the Removal Action Work Plan, dated June 28, 2017. Details concerning the removal action can be found in the Administrative Record for this removal action. The Administrative Record is located at Bureau of Land Management, Winnemucca District Office, 5100 E Winnemucca Blvd, Winnemucca, Nevada, 89445.

### **Environmental Covenant**

NOW THEREFORE, Owner, Holder, and the Agencies agree to the following:

5. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to NRS Chapter 445D. This Environmental Covenant runs with the land and is perpetual unless amended or terminated pursuant to NRS § 445D.180.
6. Effect. This Environmental Covenant burdens the Property, and binds Owner Respondent, its successors and assigns, any future record title owner, any person hereafter acquiring or owning any interest in the Property regardless of how the interest was obtained.
7. Owner. Record title to the Property is held by Barrick Gold U.S., Inc, whose address is 460 West 50 North, Suite 500, Salt Lake City, Utah 84101.
8. Holder. NDEP is the holder of this Environmental Covenant and is qualified to hold and enforce environmental covenants pursuant to NRS § 445D.080. Holder may exercise any and all of the remedies of a "holder" under NRS § 445D.200. NDEP is located at 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701.
9. Agencies. Agencies include BLM and the United States Environmental Protection Agency. The Agencies are not holders of this Environmental Covenant and do not possess any property rights under this Environmental Covenant. See NRS § 445D.120(2). The Agencies have the right to enforce any violations of this Environmental Covenant pursuant to NRS § 445D.200.
10. Activity and Use Limitations. Once the removal activities conducted in accordance with the Removal Action Work Plan described in Paragraph 4 are complete, all future use and activity at the site shall be conducted in a manner that maintains the integrity of the cover material placed on the calcine tailings pile and the perimeter fencing. The following Activity and Use Limitations will apply to the Property following completion of the removal activities.
  - a) Any activity or use of the Property that would alter or disturb the cover material or the perimeter fence, other than work necessary to maintain the effectiveness of the cover or

the fencing, is prohibited.

- b) Construction of buildings or other structures on or across the Property that would impact the calcine tailings pile, its cover, or the perimeter fence, unless approved in advance by the Holder and the Agencies, is prohibited.

11. Successors and Assigns. This Environmental Covenant shall be binding upon the Owner and the Holder and their successors and assigns, subject to amendment or termination as set forth in Paragraph 14, or as provided for in NRS Chapter 445D.

12. Rights of Access. Owner hereby grants to the Holder and the Agencies, their agents, contractors, and employees the right of access to the Property for implementation or enforcement of this Environmental Covenant.

13. Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED \_\_\_\_\_, 20\_\_, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE HUMBOLDT COUNTY RECORDER ON \_\_\_\_\_, 20\_\_, IN [DOCUMENT \_\_\_\_, or BOOK \_\_\_\_, PAGE \_\_\_\_,]. THE ENVIRONMENTAL COVENANT CONTAINS ACTIVITY AND USE LIMITATIONS.

14. Amendment or Termination. This Environmental Covenant may be amended or terminated by written consent as provided for in NRS § 445D.190. The term, "Amendment," as used in this Environmental Covenant, shall mean any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining. The term, "Termination," as used in this Environmental Covenant, shall mean the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

15. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

16. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Nevada.

17. Recordation. Within thirty (30) days after the Agencies provide Notice of Completion of Work as required pursuant to Section XXVII of the Administrative Settlement and Order On Consent For Removal Action, Owner shall file this Environmental Covenant for recording, in the same manner as a deed to the Property, with the Humboldt County Recorder's Office.

18. Effective Date. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded, in accordance with paragraph 17, as a document of record for the Property with the Humboldt County Recorder.

[Remainder of Page Intentionally Left Blank]

**IT IS SO AGREED:**

BARRICK GOLD U.S. INC.

\_\_\_\_\_  
Signature of Owner Respondent/Grantor

\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
Date

State of \_\_\_\_\_ )

County of \_\_\_\_\_ )

) ss:

Before me, a notary public, in and for said county and state, personally appeared \_\_\_\_\_, a duly authorized representative of Barrick Gold U.S. Inc., who acknowledged to me that he/she did execute the foregoing instrument on behalf of Barrick Gold U.S. Inc.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal  
this \_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

\_\_\_\_\_  
Signature of Holder/Grantee

\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
Date

State of \_\_\_\_\_ )

County of \_\_\_\_\_ )

) ss:

Before me, a notary public, in and for said county and state, personally appeared \_\_\_\_\_, a duly authorized representative of the Nevada Division of Environmental Protection, who acknowledged to me that he/she did execute the foregoing instrument on behalf the Nevada Division of Environmental Protection.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal  
this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

U.S. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT

\_\_\_\_\_  
[Name and Title]  
U.S. Department of Interior  
Bureau of Land Management

\_\_\_\_\_  
Date

State of \_\_\_\_\_ )

County of \_\_\_\_\_ )

ss:

Before me, a notary public, in and for said county and state, personally appeared \_\_\_\_\_, a duly authorized representative of the U.S Department of Interior, Bureau of Land Management who acknowledged to me that he did execute the foregoing instrument.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this \_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

U.S. ENVIRONMENTAL PROTECTION AGENCY

\_\_\_\_\_  
[Name and Title]  
U.S. Environmental Protection Agency  
Region IX

\_\_\_\_\_  
Date

State of \_\_\_\_\_ )

County of \_\_\_\_\_ )

ss:

Before me, a notary public, in and for said county and state, personally appeared \_\_\_\_\_, a duly authorized representative of the U.S. Environmental Protection Agency, who acknowledged to me that he did execute the foregoing instrument.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal  
this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public



9487157\_2

## **EXHIBIT A**

## **REMOVAL ACTION WORK PLAN**

**Cordero Calcine Pile Cover  
McDermitt Closure Site  
Humboldt County, Nevada**

Prepared For:

Barrick Gold Corporation  
2270 Corporate Circle, Suite 100  
Henderson, NV 89074

June 28, 2017

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## 1. **DEFINITIONS**

Whenever terms listed below are used in this Removal Action Work Plan ("RA Work Plan"), the following definitions shall apply. To the extent that any of the following definitions are in conflict with the AOC, the definition and meaning established in the AOC shall govern and control.

**"Administrative Order on Consent" or "AOC"** shall mean the Administrative Settlement Agreement and Order on Consent For Removal Action among Barrick Gold U.S., Inc., EPA, and BLM pertaining to the Affected Property.

**"Affected Property"** shall mean the Cordero Mine calcine mercury tailings pile located on patented claims owned by Barrick Gold U.S., Inc. that also may have comprised part of the former McDermitt Mine site, and on Federal land managed by the BLM. The Affected Property is generally located within the NE 1/4 of Section 33, T47N, R37E, Mt. Diablo Meridian, Humboldt County, Nevada, approximately 11 miles southwest of the town of McDermitt, Nevada.

**"Barrick"** shall mean Barrick Gold U.S., Inc. and any successors and assigns.

**"BLM"** shall mean the United States Department of the Interior, Bureau of Land Management and any successor departments or agencies of the United States.

**"Calcine Pile"** shall mean calcined mercury tailings from the former Cordero Mine operations, located on the Affected Property.

**"EPA"** shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

**"Relevant Standards"** include BLM- and EPA-approved plans, applicable regulations, ordinances, requirements, technical specifications, and Applicable or Relevant and Appropriate Requirements ("ARARs") related to the Affected Property, as specifically identified herein.

**"Removal Action" or "RA"** for purposes of this RA Work Plan, shall mean the activities associated with the implementation and completion of Work discussed in Section 3.

**"Removal Action Work Plan" or "RA Work Plan"** shall mean this work plan.

**"Work"** refers to the removal action work tasks, as described more fully in Section 3 of this RA Work Plan.

## **2. OVERVIEW**

### **Introduction**

The primary purpose of this RA Work Plan is to describe the Work associated with completion of this RA. This RA Work Plan also describes the technical approach that will be followed for completing the RA and outlines the Relevant Standards to be met during each stage of the implementation of the RA.

### **Location**

The McDermitt Mine is located in the northwest portion of the state of Nevada, 10 miles southwest of the town of McDermitt in Humboldt County and is in portions of sections 22, 23, 26, 27, 28, 33, and 34 T47N R37E of the Mount Diablo Baseline & Meridian. A point central to the project is further described as located at latitude 41° 55' 08" North, longitude 117° 48' 41" West.

### **Land Use**

Prior to historical mining in the area, land uses were predominantly grazing and wildlife habitat. Post-mining land use ("PMLU") is anticipated to be limited, recognizing the limitations on use from the fencing that will be maintained.

### **Ownership**

In 1970, Sierra Mineral Management Company, as general partner of the Mineral Exploration Company, Ltd. of New Jersey, acquired the leases to the Cordero Mine and surrounding area. In 1972, an option was granted to American Exploration and Mining Company ("Amex") that resulted in a joint venture between Mineral Exploration Company (49%) and Amex, Inc. (51%). In 1973, Amex changed its name to Placer Amex, Inc., 100% owned by Placer Development Limited of Canada, and took the lead in exploration and ultimate development of the McDermitt Mine in 1975.

The McDermitt Mine operated from 1975 until its closure in 1990 and employed a process that did not generate calcine tailings. During 1979 and 1980, Placer Amex acquired patents on a number of claims that cover the McDermitt Mine and most of the waste dumps and tailings pond. In 1983, the joint venture agreement was reconfigured to include Placer U.S. Inc., successor to Placer Amex, Inc., and Sterling Mineral Venture, a joint venture between Mineral Exploration Company and Sterling Venture Ltd., a New Jersey partnership.

In 1987, Placer U.S. Inc. changed its name to Placer Dome U.S. Inc. In 2006, Barrick Gold Corporation acquired 100% of the stock of Placer Dome Inc., which owned 100% of the stock of Placer Dome U.S. Inc. In 2007, Placer Dome U.S. Inc. was renamed Barrick Gold U. S., Inc. Ownership of the patented claims remains with the joint venture in which Barrick Gold U.S., Inc.

is the majority partner (51%).

### 3. **WORK**

While the Work tasks are generally listed in the order they will be implemented during RA activities, a comprehensive RA construction schedule will be developed as part of pre-mobilization.

#### 3.1. **PRE-MOBILIZATION**

Description of Work. Pre-mobilization is comprised of meetings of staff, site visits, plan development, investigatory work associated with the RA, and all administrative field preparatory work required to proceed with the implementation of RA activities. More specifically, pre-mobilization activities include the following:

- RA Work Plan development and approval; and
- Health and Safety Plan development.

Objectives of Work. Each pre-mobilization activity has a specific objective(s) to achieve during implementation. This RA Work Plan details how such objectives will be met through activity-specific procedures and the Relevant Standards discussed below. The following are the specific objectives for each pre-mobilization activity.

##### *Removal Action Work Plan*

This RA Work Plan has been submitted to BLM for review and approval and will be an attachment to the AOC. The purpose of the RA Work Plan is to identify the nature and scope of the RA for the Affected Property.

##### *Health and Safety Plan*

The Health and Safety Plan (HASP) will govern all issues pertaining to the personal health and safety of on-site workers associated with implementation of the Work. The HASP will be submitted to BLM for review and acceptance concurrently with the submittal of the final RA Work Plan. The objectives of the HASP are to establish a workplace that is injury-free and incident-free, to provide optimum productivity, and to meet or exceed compliance of standards and regulations established by the Occupational Safety and Health Act (OSHA).

Relevant Standards. All of the work activities associated with pre-mobilization will be conducted in accordance with this Work Plan.

### 3.2. MOBILIZATION AND SITE PREPARATION

Description of Work. Mobilization refers to the transfer of operations to the Affected Property. Mobilization will include the following activities:

- Implementation of the Health and Safety Plan;
- Transferring and establishment of necessary personnel, equipment, and temporary facilities to the Affected Property;
- Conducting baseline air monitoring;
- Setting up temporary administrative support facilities (e.g., an EPA facility);
- Establishment of exclusion zone, contamination reduction zone, and support zone; and
- Implementation of security measures.

Site preparation refers to preparing the Affected Property for the implementation of Work described in Sections 3.3 through 3.7. It relates to how access, security, contingency procedures, management responsibilities, and waste disposal will be handled at the Affected Property after mobilization is complete. These activities will include the following activities:

- Identify utility lines (e.g., natural gas, electric, water, sewer, etc.);
- Complete field survey and staking of Affected Property boundaries;
- Establish safety zones;
- Implement Stormwater BMPs for construction activities; and
- Implement dust suppression and monitoring program.

Objectives of Work. Each mobilization and site preparation activity has a specific objective(s). The following are the individual objectives for each mobilization and site preparation activity.

#### *Health and Safety*



As part of mobilization, the relevant components of the HASP, as defined and discussed above, will be implemented.

#### *Transfer of Personnel, Equipment, and Temporary Facilities*

Personnel, equipment and temporary facilities will be transferred to the Affected Property during mobilization activities. During the transfer, the objectives are to minimize any impacts to the health and safety of on-site workers and immediate public, and limit damage to the equipment and facilities.

#### *Support Facilities*

After the transfer of personnel, equipment and temporary facilities, administrative support facilities will be established outside the boundary of the Cordero Calcine Pile perimeter fence. The objective for establishing such facilities is to create an injury-free and incident-free workplace conducive to optimum productivity for on-site workers and visitors.

#### *Site Security*

Security measures will be established upon mobilization to the Affected Property. The objectives of these measures will be to: (1) prevent intruders from gaining access to the Affected Property; (2) limit damage to equipment; and (3) provide procedures for authorized entry to the Affected Property.

#### *Stormwater BMPs for Construction Activities*

Stormwater Best Management Practices (BMPs) will be implemented, before ground disturbing activity occurs, to minimize sediment transport from stormwater runoff at the Calcine Pile, borrow area, and other construction areas. Silt fences, straw bales, sediment basins, or other BMPs will be used to ensure compliance with stormwater discharge requirements. See Figure 1 for the typical stormwater BMP detail with proposed BMP locations.

#### *Dust Suppression and Air Monitoring*

Dust suppression systems will be utilized during earthworks activities at the Affected Property. The objectives of the dust suppression systems include the following: (1) to minimize, reduce or eliminate fugitive dust emissions from the Affected Property during the performance of RA

activities; (2) to ensure the safety of workers and authorized visitors on the Affected Property during RA activities; and (3) to prevent or reduce the off-site release of visible dust emissions to the surrounding area.

Visual monitoring of the efficacy of the dust suppression activities will be utilized to meet three objectives. These objectives are: (1) to protect on-site workers implementing RA activities; (2) to protect the public from potential fugitive air emissions during the implementation of the RA; and (3) to meet federal and state ARARs. In addition to the visual monitoring, an air monitoring program will be implemented as outlined in the HASP.

### *Utility Line Demarcation*

As part of site preparation activities, utilities at the Affected Property will be identified and demarcated through coordination with a utility location service. The objective for such identification is to ensure health and safety protection of on-site workers and visitors during implementation of the Work.

Relevant Standards. The Relevant Standards applicable to Section 3.2 are as follows:

- The Health and Safety Plan (HASP);
- OSHA regulations (e.g., 29 Code of Federal Regulations (CFR) Part 1910), and
- Federal and State ARARs related to mobilization and site preparation activities.

### **3.3. FENCE REMOVAL**

Description of Work. Fence removal is comprised of actual removal of the fence and temporary storage of fencing materials. Fence removal will include the following activities:

- Removing, rolling and storing the existing 6-foot chain link fabric from approximately half of the existing perimeter. This task also includes fence post removal as required to facilitate access to the Calcine Pile and pile perimeter to complete the Work without damage to the remaining fence sections.

Objectives of Work. The following are the objectives of the fence removal:

- Removal and safe storage of fence fabric, posts, and hardware to facilitate access to the Affected Property by earthmoving equipment and to allow sufficient clearance around the Affected Property to allow access related to subsequent Work.

Relevant Standards. The Relevant Standards applicable to fence removal are as follows:

- The Health and Safety Plan (HASP);
- Stormwater requirements for construction activities (40 CFR § 122.26(b)(14)(x)); and
- OSHA regulations (e.g., 29 CFR Part 1910).

### **3.4. CALCINE PILE PREPARATION**

Description of Work. Calcine Pile preparation is comprised of both cleaning up calcine material and re-grading the Affected Property. Calcine Pile preparation activities will include the following:

- Calcine material residing on the ground between the toe of pile and fence shall be removed. This task will include picking up an average of 3"-6" inches of calcine scattered around pile perimeter and placing it at toe of pile to form a smooth and consistent slope ready for cover application. Excavated areas will be graded to ensure drainage away from the Calcine Pile and eliminate ponding.
- The second portion of this task pertains to cut-to-fill regrading in the northern area of the Affected Property. This task will include regrading the area previously used by the public to access the pile to an average slope of approximately 3:1 H:V, consistent with the existing slopes. Calcine spread over the existing area will be pushed against the pile toe and steeper slopes will be regraded via cut-to-fill regrading to match existing flatter surrounding slopes. See Figure 3.

Objectives of Work.

- To relocate calcine material located inside the fenced area to the Calcine Pile.
- Re-grade to prepare the slopes of the Calcine Pile to form a more stable, erosion resistant landform. The lower slope angles will also facilitate access to the Affected Property by the cover placement earthmoving equipment.

Relevant Standards. The Relevant Standards applicable to the Calcine Pile preparation task are as follows:

- The Health and Safety Plan (HASP);
- OSHA regulations (e.g., 29 CFR Part 1910); and
- Stormwater requirements for construction activities (40 CFR § 122.26(b)(14)(x));

### **3.5. COVER PLACEMENT**

Description of Work. Cover placement is comprised of borrow source preparation and excavation, placement of cover material on the Calcine Pile, and reclamation of the borrow source. Cover placement will include the following activities:

- Clear and grub borrow area – Includes clearing and grubbing within the borrow area footprint, including removal of brush and other organic material. This task includes loading, hauling, and placement in the designated area and temporarily stockpiling grubbed material within the topsoil stockpile footprint immediately west of borrow area. See Figure 2.
- Topsoil salvage – Includes removal of upper 2 feet of surficial soils to a stockpile immediately west of the borrow area.
- Place cover over the Calcine Pile – Cover to be excavated from the designated borrow area immediately west of the Affected Property and placed on the Calcine Pile in two loose lifts (each approximately 16-inches-thick) with compaction by equipment traffic resulting in a minimum 24-inch thick cover. See Figure 3. Survey control will be completed to ensure adequate placement thickness. The average one way haul is approximately 1,000 feet uphill at an approximate grade of +5%. This activity will include:
  - dust control,
  - establishment of temporary roads to access top of pile, and
  - removal of access road for final pile configuration.
- Borrow source reclamation – Regrading - The soil from borrow area will be sandy gravel and should be borrowed such that the final borrow area will be graded to drain to the north at a relatively constant base grade without the potential to pond stormwater runoff.
- Borrow source reclamation – Topsoil replacement - Following borrow area utilization,

topsoil stockpiled will be hauled and placed in the borrow area placing it to an average depth of approximately 12 inches. This task includes preparation of the final surface for seeding, and incorporation of grubbed material into final surface by tracking with a dozer.

- Site reclamation–Reseed site area – This task includes reseeding each of the Calcine Pile, borrow area, topsoil stockpile area and haul roads, as depicted on Figures 2 and 3, using BLM-approved seed mix, including light scarification of final surface, broadcast seeding, and harrowing. The seed mix and application rate will be determined by the BLM. It is estimated that the seeding rate will be 12-15 pounds of pure live seed (“PLS”) per acre and the seed mix will contain a basic mix of grasses, forbs and shrubs that are known to be successful in this area. Total acreage of disturbance for the borrow area and the adjacent topsoil stockpile is approximately 5.8 acres of disturbance. This task does not include long-term maintenance of the vegetation.
- Stormwater controls – The drainage on the west side of the Calcine Pile will be repaired by removing road fill material that was previously graded into the adjacent drainage. Stormwater BMPs will be installed downstream of the repaired drainage to capture sediment from the repaired section.

#### Objectives of work.

- To place a cover over the Calcine Pile.
- To reclaim the borrow source to a stable configuration that will free drain to the north and will have adequate topsoil and seed to revegetate to its original condition.

Relevant Standards. The Relevant Standards applicable to the cover placement task are as follows:

- Federal and State ARARs related to capping activities;
- The Health and Safety Plan (HASP);
- OSHA regulations (e.g., 29 CFR Part 1910); and
- Stormwater requirements for construction activities (40 CFR § 122.26(b)(14)(x)).

### **3.6. FENCE RE-INSTALLATION**

Description of Work. Fence re-installation is comprised of re-establishing the perimeter fencing utilizing salvaged and/or new materials as required. This task includes the following activities:

- Fence installation –installation of new poles in concrete and installation of chain link fabric. Three strands of barbed wire above the chain link fence fabric will be installed. The drive through gate will be replaced with solid fencing and a single, lockable mangate.

Objectives of work.

- To preclude easy access to the Affected Property by unauthorized persons.

Relevant Standards. The Relevant Standards applicable to fence re-installation are as follows:

- The Health and Safety Plan (HASP);
- Stormwater requirements for construction activities (40 CFR § 122.26(b)(14)(x));
- OSHA regulations (e.g., 29 CFR Part 1910); and
- Nevada Division of Transportation Specification for chain link fence.

### **3.7. DEMOBILIZATION**

Description of Work. Demobilization activities will include:

- Conduct pre-final and final inspections of RA activities:
  - Pre-final and final inspections will be conducted to review conditions at the Affected Property at the conclusion of the Work. Upon completion of the Work, Barrick will schedule a pre-final inspection with EPA and BLM representatives. The objective of this inspection is to determine whether all aspects of removal activities to be conducted are complete and meet Relevant Standards.
  - A punch list generated from the appropriate inspection checklist(s) will be developed based on the pre-final inspection. The objective of this punch list is to document the items to be reviewed or addressed prior to the final inspection. Barrick will develop procedures to resolve deficient items listed in the punch list upon completion of the pre-final inspection and will implement the procedures prior to the final inspection. If all items on the inspection checklist(s) have been

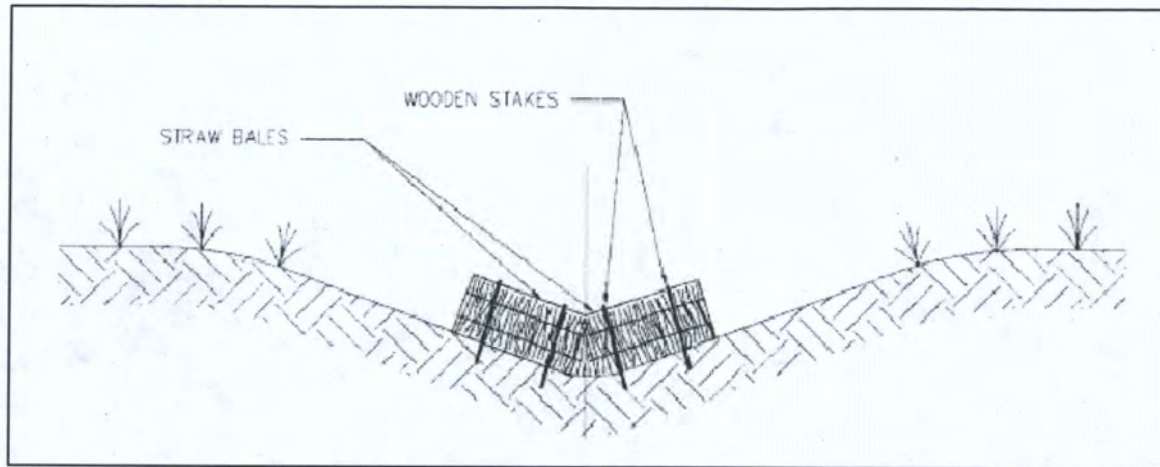
sufficiently met during the pre-final inspection, generation of a punch list will not be necessary for a final inspection.

- Upon completion of the punch-list items, if necessary, a final inspection will be scheduled and attended by EPA and BLM representatives. The objective of this inspection is to review and inspect the RA Work/punch-list items completed and confirm such completed work meets applicable Relevant Standards.
- Perform final topographic survey for as-builts: Upon completion of the Work, a final topographic survey will be performed to produce as-built drawings of the Affected Property. Copies of such drawings and surveys will be incorporated into the Removal Action Report.
- Remove personnel and equipment: Equipment and personnel will be demobilized from the Affected Property. All temporary construction facilities will be removed and all related trash and debris will be removed from the Affected Property.
- Submit a final report to the BLM for review and approval as required by Paragraph 49 of the AOC.

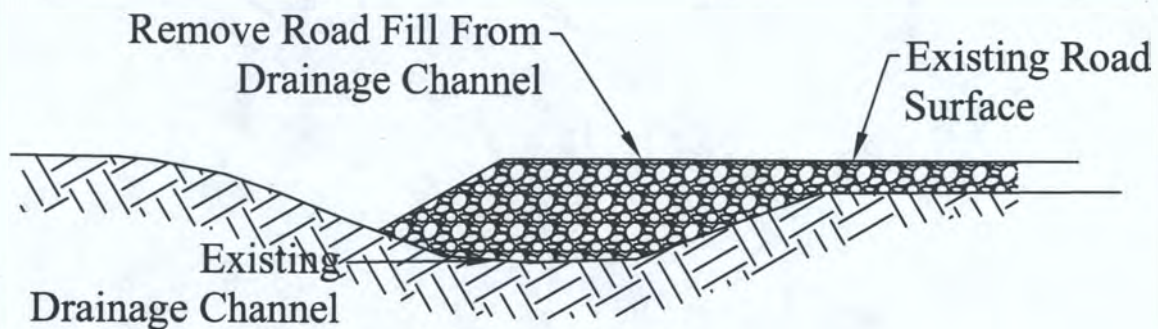
Relevant Standards. The Relevant Standards for the demobilization activities at the Affected Property for Barrick's Work will be:

- Health and Safety Plan (HASP);
- Stormwater requirements for construction activities (40 CFR § 122.26(b)(14)(x)); and
- Federal and State ARARs related to demobilization activities.

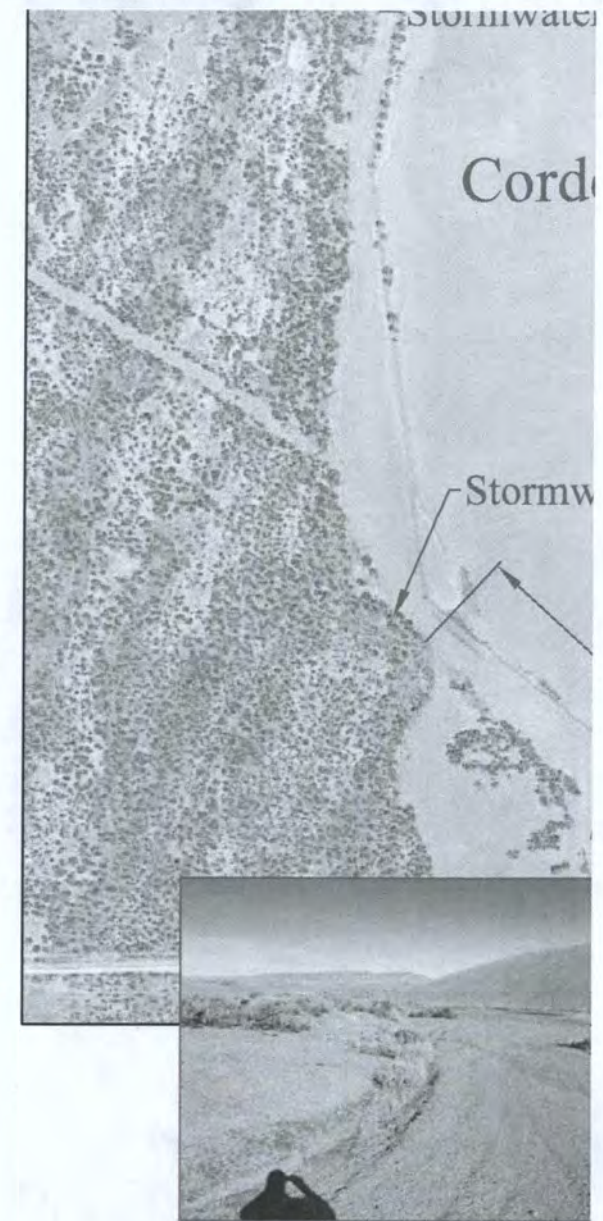




Typical Stormwater BMP



Typical Drainage Repair



Notes:

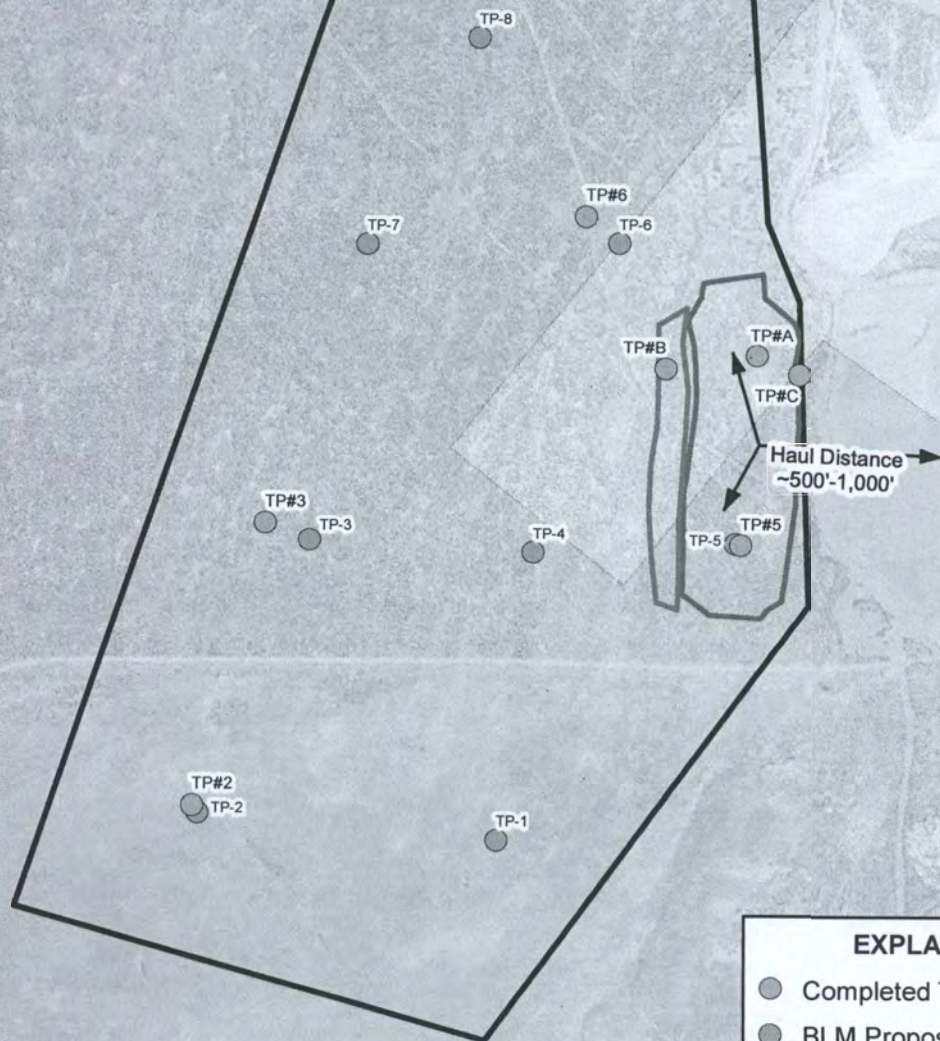
Bales to be securely anchored with atleast two stakes driven 18" into the ground.

Bales to be entrenched a minimum of 4"

Bales to be oriented so that binders are oriented around the sides to prevent deterioration



Item	Quantity	U/M
Excavation in the North Area of the Calcine Pile	120	Cubic Yards
Grading (Filling) the North Area of the Pile Borrowing Material along the North Side of the Pile.	400	Cubic Yards
Topsoil Stripping/Removal (top two feet)	13,400	Cubic Yards
Hauling Material from Borrow Area to the Calcine Pile.	23,700	Cubic Yards
Total Disturbance Borrow Area	5.50	Acres
Total Disturbance Top Soil Stockpile Area	1.30	Acres
Average Hauling Distance of Cover Material from Borrow Area to Calcine Pile	1,000	Feet
Average Slope of Hauling (uphill)	5	Percentage

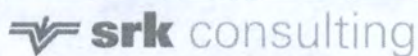


#### EXPLANATION

- Completed Test Pit (TP#)
- BLM Proposed Test Pit (TP-)
- ⬢ BLM Area of Investigation
- ⬢ Topsoil Stockpile
- ⬢ Borrow Pit
- Public
- Private



Feet  
0 500



NAD 1983 UTM Zone 11N Feet

DESIGN: BVB DRAWN: BVB REVIEWED: VS

SCALE: 1 inch = 500 feet DATE: 9/18/2015

FILE: Fig02\_Gravel\_Pit\_BVB\_20150917.mxd

**BARRICK GOLD**

**MCDERMITT MINE**

DRAWING TITLE: **LIMITS OF  
PROPOSED GRAVEL BORROW  
AND TOPSOIL STOCKPILE AREAS**

**GRAVEL SOURCE INVESTIGATION**

DRAWING NO. **FIGURE 2**

SRK JOB NO. **367500.020**

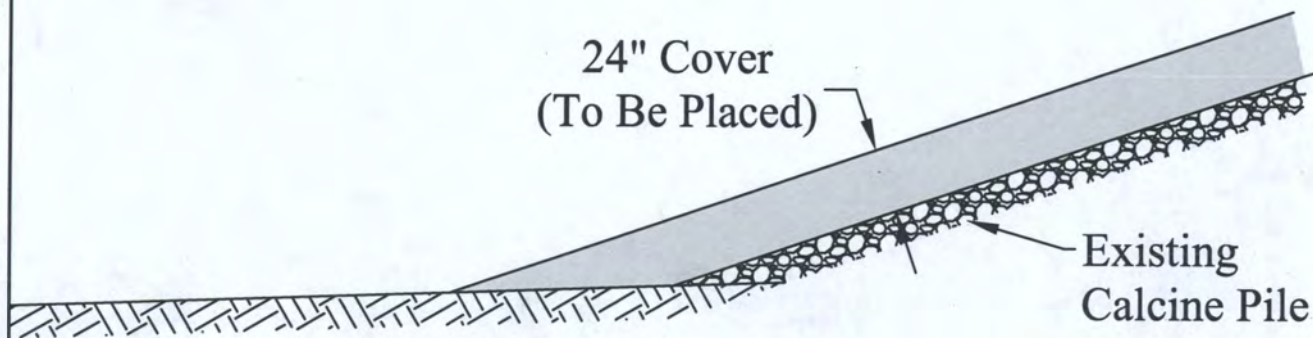
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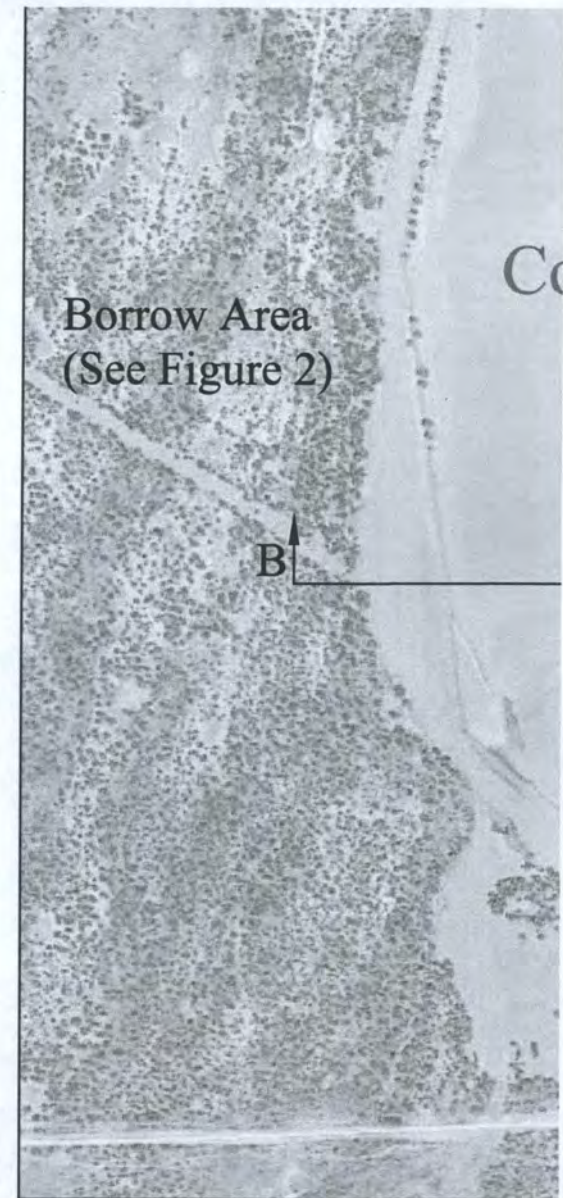




Section A-A  
Typical Slope Regrade  
(Cover not shown)



Section B-B  
Typical Cover Placement



Notes:

North end of Calcine Pile to be regraded to a minimum 3:1 slope.  
Cover to be placed in two 16" lifts to achieve a minimum 24" cover



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

OCT 16 2012

**MEMORANDUM**

**SUBJECT:** Request for a Time-Critical Removal Action at the McDermitt Site,  
McDermitt, Humboldt County, Nevada

**FROM:** Tom Dunkelman, On-Scene Coordinator  
Emergency Response Section (SFD-9-2)

**TO:** Daniel Meer, Assistant Director (SFD-9)  
Response, Planning and Assessment Branch

**THROUGH:** Harry Allen, Chief  
Emergency Response Section (SFD-9-2)

**DATE:** October 15, 2012

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval of the selected removal action described herein for the McDermitt Site located in McDermitt, Humboldt County, NV and to incur direct extramural costs of up to \$1,950,000.

The proposed response action would mitigate threats to human health and the environment posed by the presence of mercury and arsenic present in calcine material that has been used as fill at multiple locations, including the McDermitt Combined School and numerous residences, within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. As used in this Action Memorandum, the terms "calcine," "calcine material," and "calcined tailings" refer to crushed mine ore that has been roasted in a furnace. As used in this Action Memorandum, the term "Site" is defined as including the Cordero Mercury Mine and associated claims and property, the McDermitt Mercury Mine and associated claims and property, and all locations within the town of McDermitt and the Fort McDermitt Paiute Shoshone Indian Reservation where roasted ore material (calcine) has come to be located.

Conditions presently exist at the Site that, if not addressed by implementing the response action documented in this memorandum, may lead to continued exposure to mercury and arsenic present in soil. As discussed in this memorandum, these

hazardous substances, if unaddressed, may pose an imminent and substantial endangerment to the public health or welfare or the environment.

The proposed response to the hazardous substances is consistent with removal activities authorized pursuant to Section 104(a) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9604(a), and Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. § 300.415. This response action also incorporates Site investigation activities also authorized by Section 104(a) and (b) of CERCLA, 42 U.S.C. § 9604(a) and (b).

## **II. SITE CONDITIONS AND BACKGROUND**

Site Status: Non-NPL  
Category of Removal: Time-Critical  
CERCLIS ID: NVN000909006  
SITE ID: SSID#09WL

### **A. Site Description**

#### **1. Physical location**

McDermitt, Nevada is an unincorporated community situated on the Nevada-Oregon border and encompasses approximately 13.2 square miles (8,448 acres) of land area. McDermitt is served by U.S. Highway 95, a major north-south highway linking Boise, Idaho, 192 miles to the north, with Winnemucca, Nevada, 73 miles to the south. The geographical coordinates for the approximate center of McDermitt, Nevada are 41° 59' 51.43" Latitude North and 117° 43' 08.00" Longitude West (Figure 1).

The town area is primarily located east and west of U.S. Highway 95 within the Nevada state boundary; however, the community spans north into the Oregon state boundary. The town area located east of Highway 95 consists of several commercial businesses, numerous residential properties, several paved two lane residential access roads, and mostly unpaved property driveways. The town area located west of Highway 95 consists of several commercial businesses, residential properties, the east-west Cordero Mine Road, and several unpaved residential access roads. According to 2010 United States Census Bureau results, a total of 101 housing units are located within the town of McDermitt.

The Site also includes the nearby Fort McDermitt Paiute Shoshone Indian Reservation, which is located in Humboldt County, Nevada, approximately 2.7 miles south of McDermitt. Calcine material is present at two locations on the Fort McDermitt Paiute Shoshone Indian Reservation: an unpaved public access road off the North Road which leads to the Tribal transfer station and an unpaved residential driveway off the South Road.

## **2. Site characteristics**

The Cordero and the McDermitt mercury mine sites are both located in Humboldt County, Nevada and are part of the Opalite Mining District. Two other mercury mines, the Bretz and Opalite Mines which are both located in Malheur County, Oregon (Figure 1) are also part of the Opalite mining district, which is primarily a mercury-producing district, centered approximately 15 miles west of McDermitt, NV and extending north into southern Malheur County, OR.

### **Cordero Mine Site:**

The Cordero and McDermitt mines are inactive mercury mines located adjacent to each other at the end of Cordero Mine Road, approximately 11 miles west-southwest of McDermitt, NV. The geographical coordinates for the approximate location of the Cordero and McDermitt mines are 41° 54' 59.87" Latitude North and 117° 49' 05.31" Longitude West. Outcropping cinnabar ore was first discovered in the area of Cordero and McDermitt mines in 1929, and by 1931 the first claims were staked. The property was leased in 1933 to the Bradley Mining Company which produced approximately 45 flasks of mercury before ending their lease. Horse Heaven Mines, Inc. operated the site from 1939 until 1941 and was formed by Sun Oil Company to operate mines in Oregon and Nevada, until the formation of Cordero Mining Company in 1941. The Cordero Mine quickly became a major producer in the Opalite mining district, and by 1941 was the largest producer of mercury in Nevada. The Cordero Mining Company operated surface and underground workings until 1967 when the property was sold to the Fred H. Lenway & Company, Inc., which operated the property until 1970. Between its discovery and the time Cordero mine ceased production in 1970, the Cordero mine produced over 100,000 flasks of mercury. Current site features include the remains of the processing facility, open shafts, head frames, two buildings, and multiple open pits and excavation areas. In addition there is a large calcines pile, which covers approximately 11 acres. This calcines pile is believed to contain roasted ore generated by the Cordero mine. The calcines pile is situated roughly half on BLM land and half on private land (patented claims) owned by Barrick Gold U.S., Inc. that is part of the McDermitt mine. In 1994, Barrick Gold's predecessor, Placer Dome U.S., Inc., constructed a fence around the calcines pile. In December 2011 and January 2012, BLM took action to eliminate physical hazards at the site, including fencing and backfilling certain areas. No environmental assessment of the site has occurred.

### **McDermitt Mine Site:**

The McDermitt Mine is located directly adjacent to, and north of, the Cordero Mine. In 1972, Sierra Mineral Management acquired the property. Placer Amex Inc., in a joint venture with Sierra Mineral Management began underground drilling in 1972. By 1974, Placer Amex Inc. had discovered a new, near-surface mercury ore-body with reserves of approximately 3,000,000 tons of 10 pound/ton mercury ore. In April 1974, construction and stripping of the new McDermitt mine had begun and the mine complex was officially opened in June of 1975. In 1975, the McDermitt mine was the largest and

only mercury mine in production in the United States. Mining operations at the McDermitt mine generally consisted of ore grinding, flotation concentration, mercury distillation, and tailings waste disposal. Placer Amex, which was owned by Placer Development Limited of Canada, Ltd., ultimately became Placer Dome U.S., Inc. Mining operations at the McDermitt mine ceased in the late 1980s and a final closure report was submitted in December 1994 by Placer Dome to the Nevada Department of Environmental Protection (NDEP) requesting final closure approval under Water Pollution Control Permit #NEV88034. As part of the closure plan, the processing plant was removed from the mine site. Barrick Gold U.S., Inc. acquired Placer Dome in 2006. Currently the mine site is non-operational and consists of an approximately 135-acre open-pit, along with closed waste rock dumps and closed tailings ponds.

### **3. Site evaluation**

On June 19, 1987, a Preliminary Assessment Review (PAR) that described potential environmental contaminant problems at the McDermitt mine site was completed by EPA Region IX. The PAR identified annual site inspections by the Nevada Division of Mine Inspection and the NDEP that indicated "hazardous waste problems" associated with the containment of disposed tailings and excessive blood mercury levels in employees working the retort section of the mill. The PAR recommended that more information be gathered regarding general site history, groundwater well locations, population density, and possible future sample locations in order to determine what further action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) may be necessary. In February 1988, EPA conducted a Site Inspection (SI) at the McDermitt mine. At that time, the McDermitt mine was not in operation; however, it was reported there were plans for the mine to re-open in the fall of 1988. EPA did not collect any environmental media data (e.g., soil, water) during the SI and recommended no further action under CERCLA.

On December 1, 2009, staff from the EPA Site Assessment program and Emergency Response program conducted a site visit at the Cordero and McDermitt mines to determine if conditions had significantly changed since the 1988 EPA SI Report. This visit was prompted by a request for assistance from the Fort McDermitt Paiute Shoshone Tribe. During that visit, it was pointed out to EPA staff that calcine material, reportedly taken from the Cordero and McDermitt Mine sites) had been used as fill at various locations in the town of McDermitt and on the Fort McDermitt Paiute Shoshone Reservation.

In the fall of 2010, EPA initiated a Removal Assessment, the results of which are detailed in the next section.

### **4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**



In September and October of 2010, EPA initiated a removal assessment. Several study areas were identified for assessment sampling: the Fort McDermitt Paiute Shoshone Indian Reservation, the McDermitt Combined School; roadways in the area of McDermitt, the former Cordero and McDermitt mines; and seasonal surface water drainage pathways downgradient of the Cordero and McDermitt mines. Results of this removal assessment indicated elevated levels of mercury and arsenic at multiple locations including the McDermitt Combined School, numerous roadways in the town of McDermitt and at two locations on the Fort McDermitt Paiute Shoshone Indian Reservation (including one residential driveway and the dirt road leading to the Tribal transfer station) (Figures 2 -4).

In June 2011, EPA and the U.S. Geological Survey (USGS) collected 23 surface soil and calcine samples, with the intent of evaluating the bioavailability of mercury and arsenic. This included analyzing the samples for total mercury, methyl mercury and elemental mercury, conducting sequential extraction analyses, and analyzing mercury speciation by Extended X-Ray Fluorescence (EXAFS) at the Stanford Synchrotron Radiation Lightsource (SSRL). This data was used to support the calculation of site-specific removal action levels for mercury and arsenic. Based on two separate memorandums provided by EPA Region 9 toxicologist Stan Smucker on March 23, 2012, EPA has identified the following site-specific removal action levels for residential soil: 80 parts per million (ppm) mercury and 60 ppm arsenic. EPA did not calculate a site-specific removal action levels for non-residential soil, but instead is relying on the EPA Region IX Regional Screening Levels (RSLs) of 310 ppm for mercuric chloride (and other mercury salts) and 160 ppm for arsenic.

In June 2012, EPA conducted residential soil sampling of properties where it was believed that calcine material may have been used as fill. EPA received permission to sample approximately 60 properties. Soil samples were only collected at properties where calcine material was observed to be present. A total of 92 composite soil samples (excluding duplicates) were collected from within the project area and subjected to field XRF analysis; a total of 44 land parcels, consisting of 92 decision units, were sampled. Of the 92 field XRF analyzed composite soil samples, 55 samples exceeding the soil screening level (SSL) for arsenic and/or mercury were submitted to U.S. EPA Region 9 Laboratory for analysis. Due to the arsenic and mercury data correlation between field XRF results and laboratory analysis results falling below the U.S. EPA criteria for use as screening level data, EPA primarily relied upon the results of the laboratory analyses. However, both the Field XRF analysis results and laboratory analysis results are discussed below.

- Field XRF arsenic concentrations detected in the project area from residential and public land parcels ranged from 8 mg/kg to 492 mg/kg. Of the 92 property samples analyzed by field XRF, 15 samples (16%) had arsenic concentrations that met or exceeded the residential action level of 60 mg/kg. Based on the field XRF analysis data, 13 parcels were identified during this assessment from which

samples containing arsenic concentrations in excess of 60 mg/kg were collected. These parcels are identified in Table 1. Field XRF Mercury concentrations detected in the project area from residential and public land parcels ranged from 12 mg/kg to 953 mg/kg. Of the 92 property samples analyzed by field XRF, 58 samples (63%) had mercury concentrations that met or exceeded the residential action level of 80 mg/kg. Based on the field XRF analysis data, 33 parcels were identified during this assessment from which samples containing mercury concentrations in excess of 80 mg/kg were collected. These parcels are identified in Table 1.

- Laboratory arsenic concentrations detected in the project area from residential and public land parcels ranged from 4.5 mg/kg to 97 mg/kg. Of the 55 laboratory-analyzed property samples, 20 samples (36%) had arsenic concentrations that met or exceeded the residential action level of 60 mg/kg. Based on the laboratory analysis data, 16 parcels were identified during this assessment from which samples containing arsenic concentrations in excess of 60 mg/kg were collected. These parcels are identified in Table 1. Laboratory mercury concentrations detected in the project area from residential and public land parcels ranged from 0.87 mg/kg to 230 mg/kg. Of the 55 laboratory-analyzed property samples, 42 samples (76%) had mercury concentrations that met or exceeded the residential action level of 80 mg/kg. Based on the laboratory analysis data, 23 parcels were identified during this assessment from which samples containing mercury concentrations in excess of 80 mg/kg were collected. These parcels are identified in Table 1.

During the course of conducting the removal assessment, EPA conducted informal interviews with residents. Initial interviews indicated that that calcine material present in the town of McDermitt and on the Fort McDermitt Paiute Shoshone Reservation was obtained from the Cordero Mine calcines pile, which is located both on BLM and Barrick-owned property. It is EPA's understanding that local contractors, residents and municipal organizations obtained calcine material from the Cordero calcine pile for use as fill at multiple locations within the town of McDermitt and on the Fort McDermitt Paiute Shoshone Reservation. Calcine material also appears to have been used in road construction in multiple locations in northern Humboldt County, NV and southern Malheur County, OR.

## **5. National Priorities List ("NPL") status**

The Site is not currently on the NPL and NPL listing is not considered likely.



## **B. Other Actions to Date**

### **1. Potentially Responsible Party Actions**

No assessment or closure actions have been performed by the past or current owners or operators at the Cordero Mine.

The McDermitt mine was closed by the owner/operator under a permit from NDEP. In addition, Barrick Gold's predecessor, Placer Dome, constructed a fence around the Cordero Mine calcine pile in 1994.

In December 2011 and January 2012, BLM took action to mitigate physical hazards at the Cordero Mine.

### **2. EPA Actions**

Other than the assessments previously described, EPA has not taken any clean-up action.

## **C. State and Local Authorities' Roles**

### **1. State and local actions to date**

On October 6, 2011, NDEP submitted a request for Federal assistance at the Cordero and McDermitt mine sites. NDEP has also supported EPA during the removal assessment process.

### **2. Potential for continued state/local response**

Neither state nor local agencies have the resources to undertake cleanup of the calcine material present in the town of McDermitt or on the Fort McDermitt Paiute Shoshone Reservation. EPA may request that other state and local response organizations assist and coordinate within the response for necessary tasks within their respective domains, such as traffic planning, community relations, and logistical support.

## **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

Conditions at the Site represent a release, and potential threat of release, of CERCLA hazardous substances threatening the public health, or welfare, or the environment based on the factors set forth in the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. § 300.415(b)(2). These factors include:

### **A. Actual or potential exposure to nearby populations, animals or the food chain from**

**hazardous substances or pollutants or contaminants**

Elevated levels of mercury and arsenic in surface soil have been documented during the Removal Assessment process. These areas of elevated level of mercury and arsenic are present at multiple locations including residential property in the town of McDermitt, the McDermitt Combined School, and at two locations on the Fort McDermitt Paiute Shoshone Indian Reservation. As such, there is actual or potential exposure to nearby populations from hazardous substances.

**B. Actual or potential contamination of drinking water supplies**

It is not anticipated that mercury and arsenic associated with the calcine material has impacted drinking water supplies. Mercury is relatively insoluble and is not expected to impact drinking water. The municipal drinking water well in the town of McDermitt has had periodic exceedances of arsenic drinking water standards, but this is typical of many areas in Nevada, and is likely related to naturally occurring arsenic.

**C. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate**

Elevated levels of mercury and arsenic in surface soil have been documented during the Removal Assessment process. It is possible that migration of contaminated surface soil could occur, primarily through aerial transport; although background sampling appears to indicate this is not a significant threat. Subsurface soil sampling appears to indicate that downward migration of mercury and arsenic into underlying soils is not occurring.

**D. Weather conditions may cause hazardous substances or pollutants or contaminants to migrate or be released**

The Site is located in an area of Nevada that is characterized by extremely variable winds with high velocities throughout much of the year. High winds could contribute to the migration of surface soil; although background sampling appears to indicate that this is not a serious threat.

**E. Threat of fire or explosion**

There is not a serious threat of fire or explosion at this site.

**F. Availability of other appropriate federal or state response mechanisms to respond to the release**

There is not another federal or state response mechanism available to address the calcine material that is present in the town of McDermitt or on the Fort McDermitt Paiute Shoshone Indian Reservation. As is discussed in the Proposed Actions section of this Action Memorandum, EPA Region IX has been in discussion with EPA Region IX, BLM,

NDEP and ODEQ about potential cleanup actions at the Cordero and McDermitt, Mines.

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present a release or substantial threat of release of hazardous substances into the environment that are appropriate for response actions as authorized by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a).

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

##### **A. Proposed Actions**

##### **1. Proposed action description**

The following response actions will be conducted as part of this removal action:

##### **(a) Removal of Certain Calcined Tailings**

- Given that the majority of samples collected from calcined tailings located on residential property exceeded the Removal Action Levels for Residential Soil for arsenic and/or mercury, EPA believes that the removal of all calcined tailings from residential Properties within the town of McDermitt and on the Fort McDermitt Paiute Shoshone Indian Reservation is necessary, unless subsequent EPA-approved sampling is conducted which shows that the calcined tailings from a particular residential property do not contain arsenic or mercury in concentrations exceeding the Removal Action Levels for Residential Soil. This would include: (i) approximately 51 residential Properties in the town of McDermitt identified during the removal assessment; (ii) one residential Property on the Fort McDermitt Paiute Shoshone Indian Reservation identified during the removal assessment; and (iii) any additional residential Properties containing calcined tailings which EPA may identify during the Removal Action.
- Transport of all excavated calcined tailings to the Cordero Mine calcine pile.
- Backfilling of all excavated areas using suitable fill material.

##### **(b) Covering of Certain Calcined Tailings**

- Covering in-place of certain non-residential areas containing calcined tailings, as identified by EPA, including (i) the large parking area adjacent to the football field at the McDermitt School; and (ii) long driveways at larger residential Properties which EPA, at its discretion, determines may be covered rather than excavated. Covering would consist of placing an appropriate thickness of suitable material.

The proposed action under the Action Memorandum, does not address potential cleanup actions that could be necessary at the Cordero Mine, the McDermitt Mine, and the Cordero Mine Calcines Pile, and it is possible that additional cleanup action could occur at these mine sites in the future. The proposed action under the Action Memorandum also does not address calcined tailings used as roadbed materials in the town of McDermitt and on the Ft. McDermitt Indian Reservation, because, based on the sampling results, the levels of mercury and arsenic found in these non-residential settings do not warrant further action.

## **2. Contribution to remedial performance**

### The long-term cleanup plan for the Site:

Cleanup of calcine material present in the town of McDermitt and on the Fort McDermitt Paiute Shoshone Indian Reservation is expected to be a final remedy, and as such no long-term cleanup is anticipated. It is possible that additional cleanup could occur at any of the mercury mines in the vicinity of the town of McDermitt; however, cleanup actions taken in town and on the Reservation would be consistent with any future work conducted at the mine sites.

### Threats that will require attention prior to the start of a long-term cleanup:

Cleanup of calcine material present in the town of McDermitt and on the Fort McDermitt Paiute Shoshone Indian Reservation is expected to be a final remedy, and as such no long-term cleanup is anticipated.

### The extent to which the removal will ensure that threats are adequately abated:

By conducting the actions described in this Action Memorandum, this removal action will reduce the threat of exposure to hazardous substances.

### Consistency with the long-term remedy:

Cleanup of calcine material present in the town of McDermitt and on the Fort McDermitt Paiute Shoshone Indian Reservation is expected to be a final remedy, and as such no long-term cleanup is anticipated. It is possible that additional cleanup could occur at any of the mercury mines in the vicinity; however, cleanup actions taken in town and on the Reservation would be consistent with any future work conducted at the mine sites.

## **3. Description of alternative technologies**

Alternative technologies are not appropriate for this removal action.

#### **4. Applicable or relevant and appropriate requirements (ARARs)**

Section 300.415(j) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular Site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record keeping and enforcement are not ARARs for the CERCLA response actions confined to the Site.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: Potential federal ARARs may include the CERCLA Off-Site Disposal Restrictions, 40 C.F.R. § 300.440; and the National Historic Preservation Act, 16 U.S.C. § 470f; 36 C.F.R. Part 800.

State ARARs: Potential state ARARs may include the Action Levels for Contaminated Sites regulations at Nevada Administrative Code 445A.2269-2272.

#### **5. Project schedule**

The removal action is anticipated to start after the approval of the action as indicated by the signature on this memorandum. The removal activities will require approximately three months to complete.

#### **B. Estimated Costs**

Cost estimates are based on existing Emergency and Rapid Remedial Response

Services (ERRS) rates for the EPA Region 9 contracts.

## **Extramural Costs**

### **Regional Removal Allowance Costs**

Cleanup Contractor (ERRS)	\$ 1,500,000
ERRS Contingency (20%)	\$ 300,000
<b>TOTAL, Removal Action Project Ceiling</b>	<b>\$ 1,800,000</b>
<b>START Contract Costs</b>	<b>\$ 150,000</b>
<b>TOTAL, Extramural Costs</b>	<b>\$ 1,950,000</b>

## **VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Given the Site conditions, the nature of the hazardous substances documented on-Site and the potential exposure pathways to nearby populations described in Sections III and IV above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this memorandum, present a release or substantial threat of release of hazardous substances into the environment. If no action is taken, calcine material containing elevated levels of mercury and arsenic will remain on residential properties and on school grounds, and will continue to pose an exposure risk.

## **VII. OUTSTANDING POLICY ISSUES**

This removal action addresses calcine material present in the town of McDermitt and on the Fort McDermitt Paiute Shoshone Indian Reservation. It does not address cleanup of any of the nearby mercury mines, which could require additional remediation.

## **VIII. ENFORCEMENT**

Please see the attached Confidential Enforcement Addendum for a discussion regarding potentially responsible parties and enforcement. In addition to any extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

### **Intramural Costs<sup>1</sup>**

---

1. Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not

**U.S. EPA Direct Costs****Intramural** \$ 50,000**Extramural (from above)** \$ 1,950,000**U.S. EPA Indirect Costs****(36.19% of Direct Costs(\$2,000,000))** \$ 723,800**TOTAL Costs** \$ 2,723,800

The total EPA extramural and intramural costs for this removal action, based on full-cost accounting practices, that will be eligible for cost recovery, are estimated to be \$2,723,800.

**IX. RECOMMENDATION**

This memorandum proposes a removal action for the McDermitt Site, located in McDermitt, Nevada, as developed in accordance with CERCLA and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site. Because conditions at the Site meet the NCP criteria for a time-critical removal, I recommend that you concur on the determination of imminent and substantial endangerment, the proposed removal action and the anticipated intramural and extramural direct costs of \$2,723,800. Your approval below will establish as agency action the determination of the imminent and substantial endangerment and the selection of the response action.

Approve: \_\_\_\_\_

Daniel Meer, Assistant Director (SFD-9)  
Superfund Division16 October 2012

Date

Disapprove: \_\_\_\_\_

Date Daniel Meer, Assistant Director (SFD-9) Date  
Superfund Division

include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

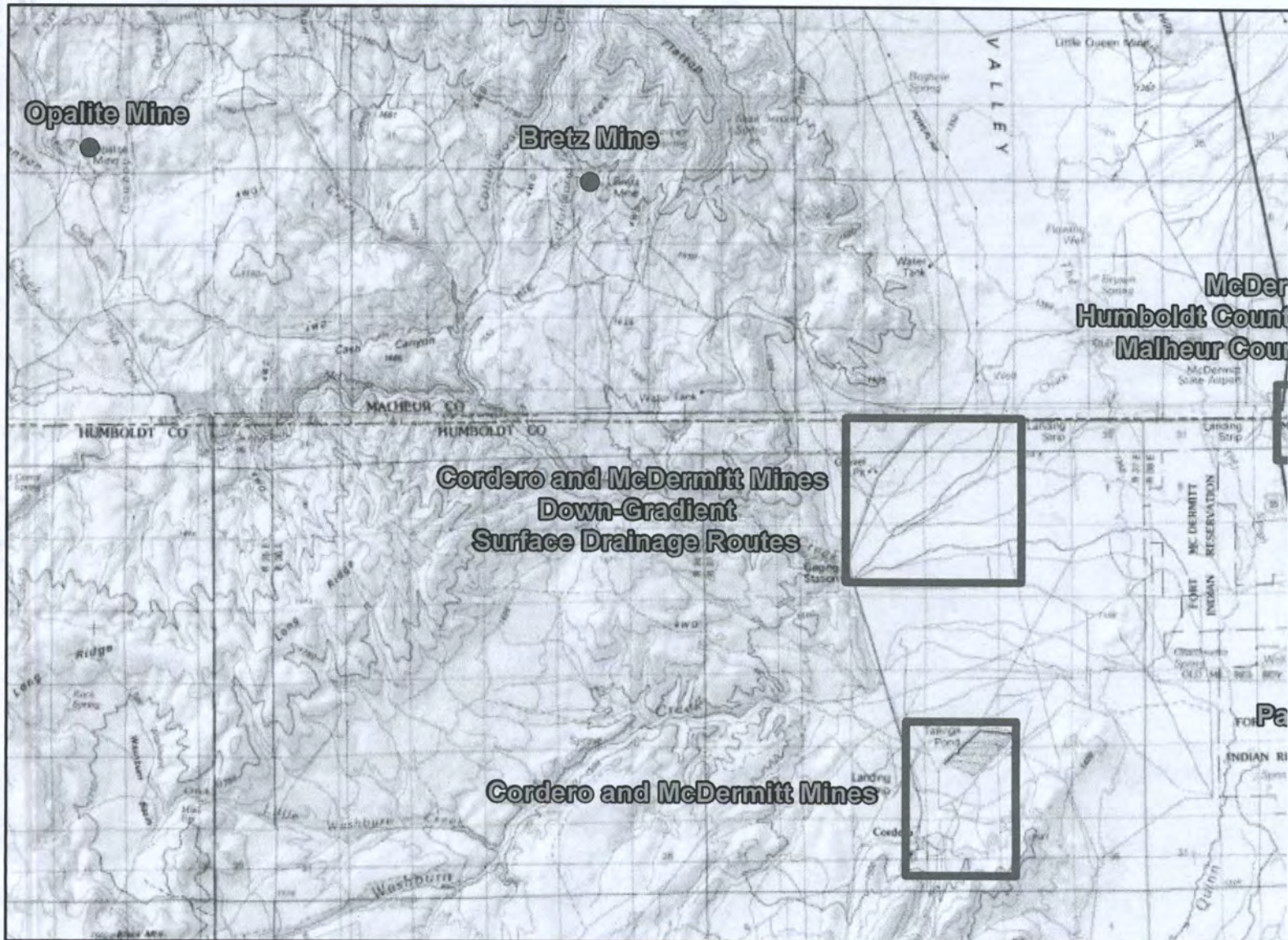
## Attachments

### Confidential Enforcement Addendum

## Appendices

- Figure 1. Area map
- Figure 2. Soil Concentration Map, Fort McDermitt Paiute Shoshone Indian Reservation, North Road
- Figure 3. Soil Concentration Map, Fort McDermitt Paiute Shoshone Indian Reservation, South Road
- Figure 4. Soil Concentration Map, McDermitt Combined School and McDermitt Roadways
- Table 1. Residential soil sampling results





LEGEND

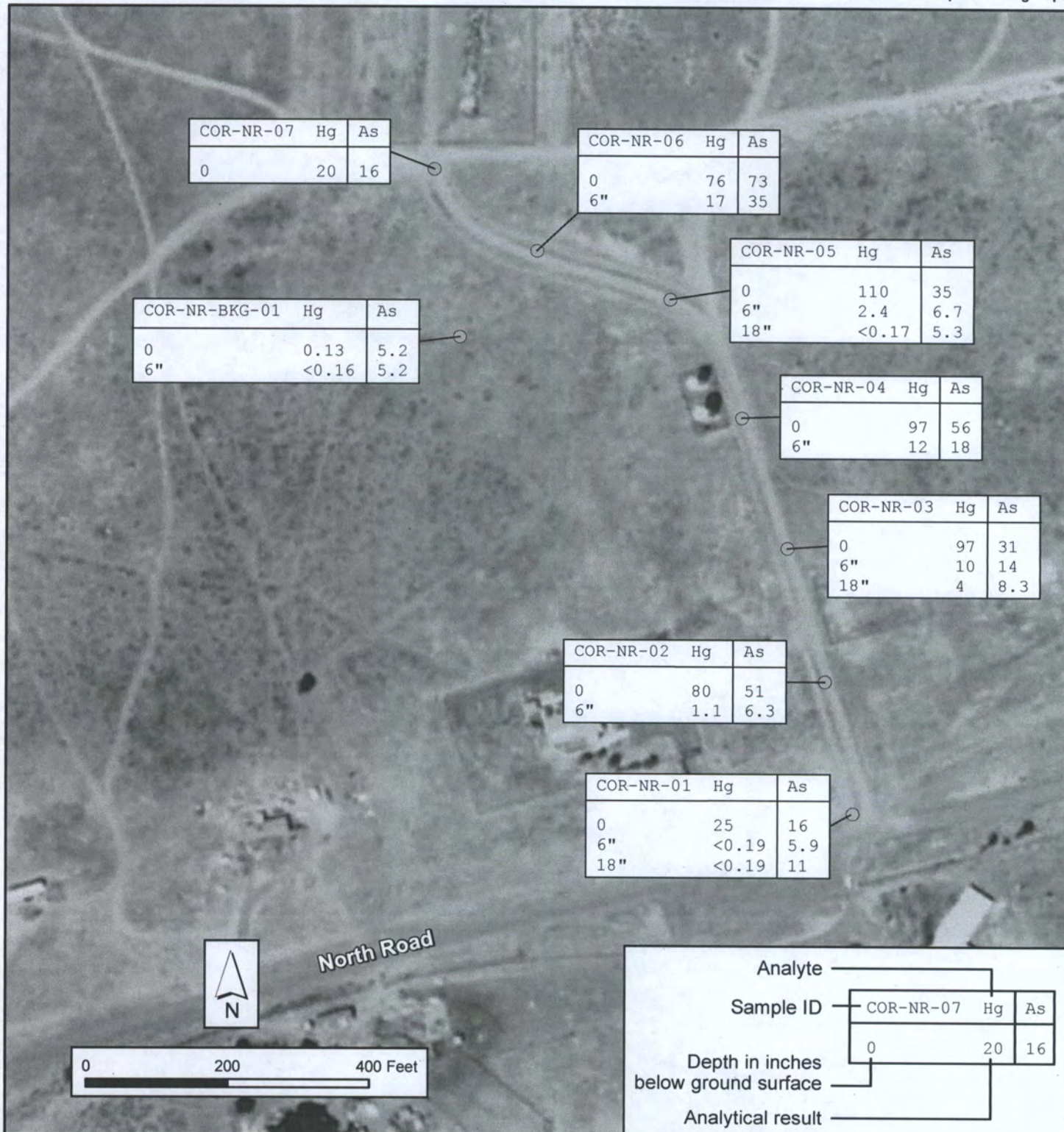


Site study area



0 1.5 3 Miles





#### LEGEND

- Discrete soil sample location

#### ABBREVIATIONS

Hg Mercury  
As Arsenic

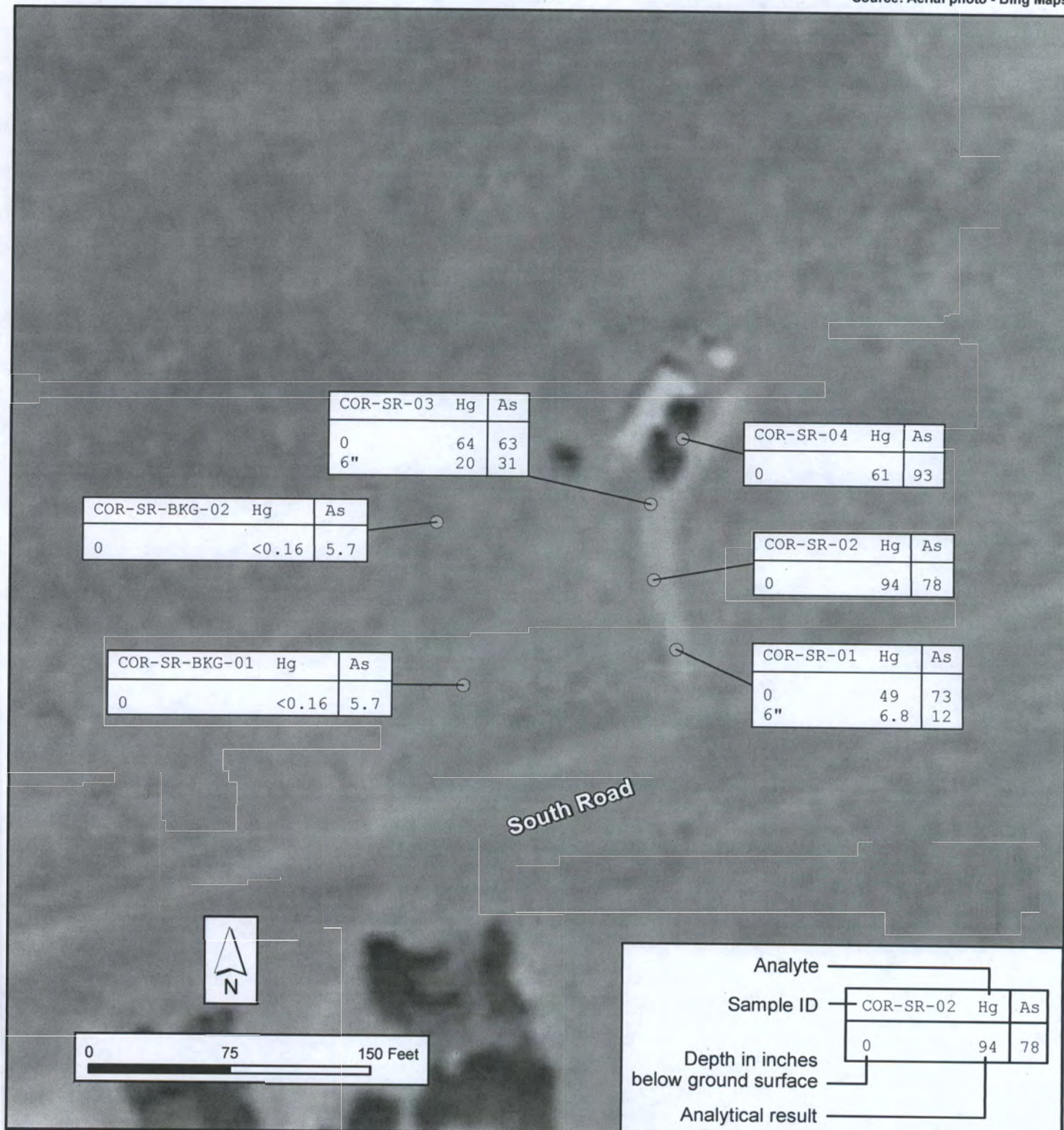
#### NOTES

Analytical results in milligrams per kilogram (mg/kg)

**Figure 2  
North Road**

**Cordero and McDermitt  
Mercury Mine Site  
Paiute Shoshone Indian Reservation  
Fort McDermitt, Nevada**





#### LEGEND

- Discrete soil sample location

#### ABBREVIATIONS

Hg Mercury  
As Arsenic

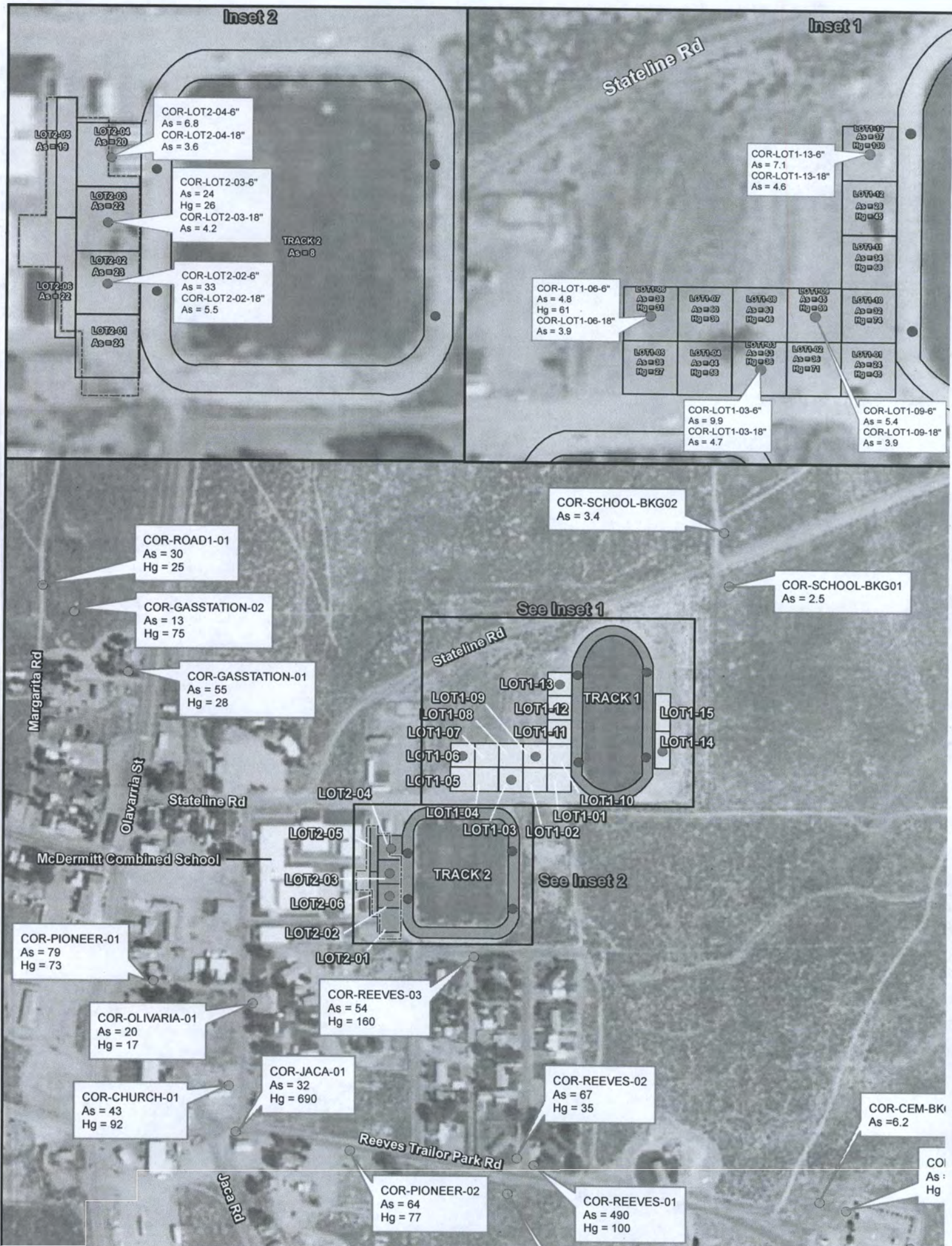
#### NOTES

Analytical results in milligrams per kilogram (mg/kg)

**Figure 3**  
**South Road**

**Cordero and McDermitt**  
**Mercury Mine Site**  
**Paiute Shoshone Indian Reservation**  
**Fort McDermitt, Nevada**







**TABLE 1**

McDermitt, Humboldt County, Nevada and Malheur County, Oregon  
 Mine Waste Removal Assessment at Properties of Release or Threatened Release  
 Property Owner Information and Soil Sample Data Summary

Property Address/ Description	Street Name	Parcel Identification Number	Owner Name	Owner Address	Owner City, State	Owner Zip Code	U.S. EPA Site-Specific Action Level
							5-Point Composite Soil Sample Location
<b>BARNES ROAD</b>							
							Driveway, East of Residence
							Backyard, South of Residence
<b>BUCKSKIN ROAD</b>							
							Backyard, East of Residence
							Frontyard, Buckskin Rd. right-of-way
							Driveway (North Side), South of Residen
							Driveway (North Side)
							Driveway (South Side)
							Frontyard, Buckskin Rd. right-of-way
							Driveway, South of Residence
							Backyard (1), East of Residence
							Backyard (2), East of Residence
							No sample; calcine material not visibly e
							Frontyard, Buckskin Rd. right-of-way
							Backyard, East of Residence
<b>CORDERO MINE ROAD</b>							
							No sample; calcine material not visibly e
							Sideyard, West of Residence/Casino (1)
							Sideyard, West of Residence/Casino (2)
							Driveway, West of Residence
							Backyard, South of Residence
<b>DORA COURT</b>							
							Frontyard, South of Residence
							Backyard, North of Residence
							Driveway, West of Residence
							Driveway, South of Residence
							Backyard, East of Residence
							No sample; calcine material not visibly e
<b>DORIS COURT</b>							
							Driveway, West of Residence
							Driveway, West of Residence
							Backyard, East of Residence
							Sideyard, South of Residence



McDermitt, Humboldt County, Nevada and Malheur County, Oregon  
 Mine Waste Removal Assessment at Properties of Release or Threatened Release  
 Property Owner Information and Soil Sample Data Summary

U.S. EPA Site-Specific Action Level							
Property Address/ Description	Street Name	<sup>12</sup> Parcel Identification Number	Owner Name	Owner Address	Owner City, State	Owner Zip Code	5-Point Composite Soil Sample Location
HIGHWAY 95							
							No sample; calcine material not visibly a
							Driveway, South of Structure
							Driveway, East of Structure (Front)
							Driveway, South of Structure (Side)
JACA DRIVE							
							Frontyard, West of Residence
							Sideyard, North of Residence
							Sideyard, South of Residence
							Frontyard, West of Residence
							Driveway, North of Residence
							Frontyard, Jaca Dr. right-of-way
							Frontyard, Jaca Dr. right-of-way
							Vacant Lot, West of Jaca Dr.
							Driveway, South of Residence
LASA DRIVE							
							Driveway, West of Residence
							Sideyard, West of Residence
							Driveway, East of Residence
							Sideyard Driveway, South of Residence
							Small Driveway, Immediately South of La
							Driveway, Unknown Mobile Home
							Driveway, East and North of Residence
							Entrance Driveway/Road
							Entrance Driveway/Road
							Residence Driveway, West of Barnes Rd.
							Frontyard Driveway, South of Residence
							Sideyard Driveway, East of Residence
							No sample; calcine material not visibly a
							Frontyard, Lasa Dr. right-of-way
							Driveway, West of Residence (Black Mat
							Backyard, South of Residence
							Pioneer Rd. right-of-way
							Fenced Area North of Residence
							Fenced Area North of Residence
							Stockpile, North of Residence
							Lasa Dr. and Doris Ct. right-of-way



McDermitt, Humboldt County, Nevada and Malheur County, Oregon  
 Mine Waste Removal Assessment at Properties of Release or Threatened Release  
 Property Owner Information and Soil Sample Data Summary

U.S. EPA Site-Specific Action Level							
Property Address/ Description	Street Name	Parcel Identification Number	Owner Name	Owner Address	Owner City, State	Owner Zip Code	5-Point Composite Soil Sample Location
MARGARITA ROAD							
							No sample; calcine material not visibly present
							Margarita Rd. right-of-way
							Vacant Lot East of Roadway
OLIVARRIA ROAD							
							Vacant Lot, West of Residence
							Driveway, Reeves Trailer Park
							Olivarría Rd. and Pioneer Rd. right-of-way
PIONEER DRIVE							
							Vacant Lot
							Vacant Lot
							Vacant Lot
							Field North of Residence
							Access Drive North of Residence
							Access Drive South of Residence
							Pioneer Dr. right-of-way
							Frontyard, West of Humboldt Co. Library
							No sample; calcine material not visibly present
REEVES ROAD							
							Reeves Rd. and Opalite Rd. right-of-way
							Driveway, West of Residence
							Frontyard, Reeves Rd. right-of-way
							Driveway, North of Residence
							Frontyard, Reeves Rd. right-of-way
							Driveway, South of Residence
							Backyard, East of Residence
							Frontyard, Reeves Rd. right-of-way
							Driveway, East of Residence
							Reeves Rd. right-of-way
							Sideyard, North of Residence
							Driveway
							Reeves Rd. right-of-way
							Pioneer Dr. right-of-way
							Reeves Rd. right-of-way
							Pioneer Dr. right-of-way



McDermitt, Humboldt County, Nevada and Malheur County, Oregon  
 Mine Waste Removal Assessment at Properties of Release or Threatened Release  
 Property Owner Information and Soil Sample Data Summary

Property Address/ Description	Street Name	Parcel Identification Number	Owner Name	Owner Address	Owner City, State	Owner Zip Code	U.S. EPA Site-Specific Action Level 5-Point Composite Soil Sample Location
<b>STATELINE ROAD</b>							
<b>UNKNOWN STREET NAME</b>							
							Driveway, East of Residence
<b>UNKNOWN STREET LOCATIONS</b>							
							Driveway, East of Residence
							Backyard, South of Residence
							Vacant Fenced Area for Mobile Home



## United States Department of the Interior



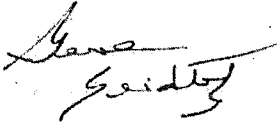
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
5100 East Winnemucca Boulevard  
Winnemucca, Nevada 89445  
Phone: (775) 623-1500 Fax: (775) 623-1503  
Email: [wfoweb@blm.gov](mailto:wfoweb@blm.gov)  
[www.blm.gov/nv/st/en/fo/wfo.html](http://www.blm.gov/nv/st/en/fo/wfo.html)

# CERCLA TIME CRITICAL REMOVAL ACTION MEMORANDUM FOR THE CORDERO-McDERMITT CALCINE PILE SITE HUMBOLDT COUNTY NEVADA

## MEMORANDUM

**DATE:** April 19, 2013

**FROM:** John Callan,  
BLM Environmental Protection Specialist

**TO:** Gene Seidlitz,  
District Manager, Winnemucca  4/19/13

**THROUGH:** Vern Graham,  
Humboldt River Field Manager

**SUBJECT:** Request for Time-Critical Removal Action at Cordero-McDermitt Calcine Pile Site

### **I. PURPOSE**

The purpose of this memorandum is to recommend, document the basis for taking, and select a time-critical removal action (TCRA) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C §§ 9601 *et seq.*, addressing the release or threat of release of hazardous substances at or from the Cordero-McDermitt calcine pile Site (Site) in Humboldt County, Nevada. A portion of the calcine pile is on land under the jurisdiction, custody or control of the U.S. Department of the Interior (DOI) and is managed by the Bureau of Land Management (BLM). This TCRA will be implemented in coordination with a time-critical removal action selected by the U.S. Environmental Protection Agency (EPA) for the McDermitt Site in an Action Memorandum signed October 16, 2012.

Material from the calcine pile containing hazardous substances has been used as fill at multiple locations throughout the town of McDermitt, NV and the Fort McDermitt Paiute Shoshone Indian Reservation. EPA's October 16, 2012 Action Memorandum documents the release of arsenic and mercury in surface soils at these locations, in concentrations posing a threat to public health or welfare or the environment, and authorizes excavation of the material from locations within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. This BLM TCRA authorizes the temporary consolidation of the excavated material on the portion of the calcine pile located on BLM-managed land.

This TCRA is authorized pursuant to the response action authority of Section 104(a) of CERCLA, 42 U.S.C. §9604(a). Pursuant to Executive Order 12580, as amended, Section 104(a) authority is delegated to the Secretary of the Interior to address the release or substantial threat of release of hazardous substances on or from property under DOI's jurisdiction, custody, or control.

## **II. SITE CONDITIONS AND BACKGROUND**

### **A. Site Description**

#### **1. Physical location and Site Characteristics**

The calcine pile sits on an 11-acre site located 5 miles straight-line distance southwest of the town of McDermitt, Humboldt County, Nevada. A portion of the calcine pile is on land managed by the BLM. Material from the calcine pile has come to be located in multiple locations throughout the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation.

The calcine pile is associated with past mining operations at the Cordero and McDermitt Mines, inactive mercury mines located adjacent to each other at the end of Cordero Mine Road, approximately 11 road miles west-southwest of the town of McDermitt, NV. During the period from 1933 to 1989, the Cordero and McDermitt Mines were two of the four largest producers of mercury in North America. The Cordero Mine is located partially on land managed by BLM and partially on private lands. Cordero Mine was operated from 1933 to 1970 by various mining operators, including, but not limited to, Bradley Mining Company, Horse Heaven Mines, Inc. or Horse Heaven Mining Company, Cordero Mining Company, and Fred H. Lenway and Company or Fred H. Lenway & Company, Inc. Current site features include the calcine pile, remains of a processing facility, open shafts, head frames, two buildings, open pits and excavation areas. In December 2011, January 2012, and May 2012, BLM took action to mitigate physical hazards at the Cordero Mine, including fencing and backfilling certain areas, conducting cultural and biological surveys, and installing 10 bat compatible closures.

The McDermitt Mine is located on privately-owned land adjacent to, and directly north of, the Cordero Mine. The McDermitt Mine was operated from approximately 1970 to 1990 by various mining operators, including, but not limited to, Placer Amex, Inc. Current site features include the calcine pile, 135-acre open pit, and reclaimed waste rock dumps and tailings ponds.

Calcine is the waste material from crushed mine ore that has been roasted to remove the mercury. In 2009, EPA discovered that materials from the calcine pile had been used as a source of fill by local residents, contractors, and municipal organizations. As a result, material from the calcine pile has come to be located at various locations within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Reservation. In 2010, EPA initiated a removal preliminary assessment at the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Reservation and identified elevated levels of mercury and arsenic at various locations within the town of McDermitt, NV, including the McDermitt Combined School and numerous residences and roadways, and at least two locations on the Fort McDermitt Paiute Shoshone Reservation (unpaved road and unpaved residential driveway).

#### **2. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant, or Contaminant**

As a part of EPA's removal preliminary assessment in June 2011, EPA collected soil and calcine samples at the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone

Indian Reservation, to evaluate the bioavailability of mercury and arsenic. EPA used the data to calculate a site-specific residential soil removal action level for mercury (80 parts per million (ppm)) and for arsenic (60 ppm). EPA did not calculate site-specific removal action levels for non-residential soil, and instead relied on EPA Region IX Regional Screening Levels (310 ppm for mercury and 160 ppm for arsenic).

In June 2012, EPA conducted residential soil sampling of properties where EPA believed, based on visual inspection, that materials from the calcine pile may have been used as fill. A total of 92 composite residential soil samples were collected and subjected to XRF analysis. Of the 92 composite samples subjected to XRF analysis, 55 samples exceeded the regional soil screening level for arsenic and/or mercury. EPA submitted the 55 samples to the laboratory for analysis. Of the 55 laboratory-analyzed soil samples, 20 samples (16 parcels of property) had arsenic concentrations that met or exceeded the residential action level and 42 samples (23 parcels of property) had mercury concentrations that met or exceeded the residential action level.

While performing the removal preliminary assessment, EPA conducted informal interviews with residents and determined that the calcine material present in the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation was obtained from the calcine pile at the Cordero Mine and McDermitt Mine. EPA concluded that local contractors, residents and municipal organizations obtained material from the calcine pile for use as fill at multiple locations.

### **3. NPL Status**

The calcine pile and the Site are not listed on the National Priorities List (NPL). The McDermitt mine is listed under CERCLIS EPA ID Number : NVD067813006

### **4. Maps and Pictures**

Appendix A contains maps and photographs of the calcine pile portion of the Site.

### **B. Other Actions Taken to Date**

In December 2011, January 2012 and May 2012, BLM took action to mitigate physical hazards at the Cordero Mine, including fencing and backfilling certain areas, conducting cultural and biological surveys, and installing 10 bat compatible closures. Other than the completion of EPA's removal preliminary assessment and issuance of its October 16, 2012 Action Memorandum, no other actions have been taken to date to address the release or threatened release of hazardous substances at or from the Site.

### **C. State and Local Authorities' Roles**

EPA coordinated with the town of McDermitt, NV, the Nevada Department of Environmental Protection, and the Fort McDermitt Paiute Shoshone Indian Reservation as it developed its removal preliminary assessment and in the selection of EPA's proposed time critical removal

action. BLM and EPA expect to continue this coordination as the removal actions are implemented at the Site.

### **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

Pursuant to Section 104 of CERCLA and consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, DOI is authorized to respond to the release or substantial threat of release of hazardous substances on or from property under DOI's jurisdiction, custody, or control. Pursuant to Section 300.415(b)(2) of the NCP, where DOI determines that there is a threat to public health or welfare or the environment, DOI may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release. The following sections evaluate, based on the factors outlined in Section 300.415(b)(2) of the NCP, threats to public health or welfare or the environment posed by the release and threatened release of hazardous substances at the Site.

#### **A. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants**

EPA's removal assessment documented elevated levels of mercury and arsenic in surface soils at multiple locations within the Site, including residential property in the town of McDermitt, NV, the McDermitt Combined School, and at two locations on the Fort McDermitt Paiute Shoshone Indian Reservation. These releases at areas within the Site have or may result in actual or potential exposure of nearby populations to hazardous substances. Implementation of EPA's and BLM's TCRA will minimize or eliminate the actual or potential exposure of nearby populations by removing hazardous substances from areas where exposure to mercury and arsenic in the surface soils can readily occur.

#### **B. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate; and weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released**

The town of McDermitt, NV and the Fort McDermitt Paiute Shoshone Indian Reservation are located in an area of Nevada that is characterized by extremely variable winds with high velocities throughout much of the year. EPA's October 16, 2012 Action Memorandum found that migration of contaminated surface soil is possible through aerial transport resulting from high winds. Excavation of the calcine material from residential areas within the Site and temporary storage on land managed by BLM will minimize or eliminate the potential migration or release or threat of release of hazardous substances in surface soils, due to weather conditions, or otherwise.

#### **C. Other situations or factors that may pose threats to public health or welfare of the United States or the environment**

As documented by EPA's removal assessment, conditions at the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation pose a threat to public health or welfare

or the environment from the release or threatened release of hazardous substances. These threats are minimized or eliminated by excavating contaminated soils from residential and other areas within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian and removing the material to the calcine pile. Allowing the removal and consolidation of this material offers a protective and cost effective short term response to mitigate risks associated with exposure to material in the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation while alternatives to provide a permanent remedy are evaluated.

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances at areas within the Site in the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation, if not addressed by implementing the response action selected in this Action Memorandum, pose a threat to public health or welfare or the environment. This TCRA is necessary to remove hazardous substances from locations within the Site where exposure to nearby populations is likely in order to abate, prevent, mitigate or eliminate the threat posed by the release or substantial threat of release of these substances.

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

##### **A. Proposed Actions**

##### **1. Proposed action description**

EPA's October 16, 2012 Action Memorandum describes the following response actions to be undertaken or overseen by EPA: (a)(1) excavation of all calcine material from residential properties within the town of McDermitt and on the Fort McDermitt Paiute Shoshone Indian Reservation; (a)(2) transport of the excavated calcine material to the calcine pile; (a)(3) backfill excavated areas using suitable fill; and (b) covering in-place of certain non-residential areas containing calcine materials. Calcine material will be transported by truck to the 11 acre calcine pile and placed back on site. EPA will coordinate any road improvements, ensure dust control at the calcine pile and secure the fence after completion of the work.

Through this Action Memorandum, BLM authorizes EPA to temporarily consolidate the excavated calcine material on the portion of the calcine pile located on property managed by BLM. Removal of the calcine material and temporary placement on land managed by BLM will mitigate or eliminate the human and environmental health risks posed by potential contact with contaminated surface soils within the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation.

##### **2. Contribution to remedial performance**

EPA anticipates implementation of its time-critical removal action to be a final remedy. In coordination with EPA, BLM will determine what additional action, if any, is required at the Cordero-McDermitt Mine Site Complex and associated calcine pile.

### **3. Project schedule**

This TCRA is anticipated to start after approval of this Action Memorandum. It is estimated that the total time needed to complete the TCRA is approximately 3 months.

#### **B. Estimated Costs**

The actions authorized by EPA's October 16, 2012 Action Memorandum will be undertaken and financed by EPA. BLM has determined there will be no additional costs to implement this TCRA.

#### **VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

In the event response action is delayed or not taken, hazardous substances will continue to be released, or there is a substantial threat of such release, within the town of McDermitt, NV and the Fort McDermitt Paiute Shoshone Reservation, continuing to pose an exposure risk to local residents.

#### **VII. OUTSTANDING POLICY ISSUES**

None.

#### **VIII. ENFORCEMENT**

EPA has identified potentially responsible parties at the Site. In coordination with EPA, pursuant to Section 107 of CERCLA, BLM will pursue enforcement and cost recovery efforts against any potentially responsible parties.

#### **IX. RECOMMEDATION**

This document identifies and recommends a removal action necessary to effectuate the EPA removal action selected in its October 16, 2012 Action Memorandum for the Site. This document was developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This recommendation is based on the administrative record for the Site and endangerment determination contained herein. The proposed BLM TCRA meets the objectives identified in this Action Memorandum to reduce risks to human health or welfare or the environment at the town of McDermitt, NV and on the Fort McDermitt Paiute Shoshone Indian Reservation. Conditions at the Site meet the criteria for undertaking the proposed TCRA, as specified by Section 300.415(b)(2) of the NCP, 40 CFR § 300.415(b)(2). We recommend your approval of the proposed TCRA.